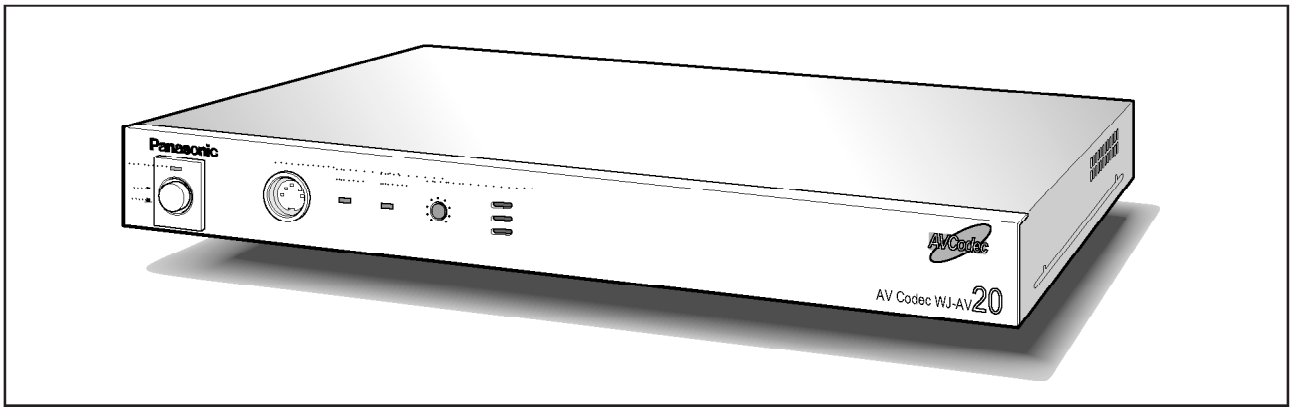
ORDER NO. AVS0003247C8

Service Manual

AV Codec

WJ-AV20



SPECIFICATIONS

● General

Power supply :	220 - 240 V AC, 50 Hz
Power consumption :	13 W max.
Weight :	4 kg
Dimensions :	420 (W) × 44 (H) × 350 (D) mm (no rubber feet and bosses included)
Applicable line :	ISDN BRI dial-up (1B/2B)
Video input :	Video input 1 - 5, composite / 1 V[p-p]/75 Ω BNC Note) Video input 1 is for combination camera control signal multiplexed.
Local output :	Composite, 1 V[p-p]/75 Ω, BNC, selected video input to be output.
Video output :	Monitor 1 (menu provided), 2 (No menu provided), composite, 1 V[p-p]/75 Ω, BNC
Image compression system :	H.263/H.261 (automatic selection) No. of processed picture elements CIF: 352 × 288 max. 15 fps
Audio input/output :	Audio input ×1, audio output ×1, RCA pin jack: –10 dB
Audio compression system :	G.728 (/G.711): audio band 3.4kHz, G.722: audio band 7 kHz, or no sound

● Control System

Data port* :	4-wire RS-485, RJ-11 connector, baud rate = 4 800 bps/ 9 600 bps, Data length = 7-bit/8-bit Stop = 1-bit/2-bit, parity = NONE/ODD/EVEN
Parallel port :	D-Sub 25-pin female, Input × 8 (make-contact), Output ×8 (open collector output) Forced (line) disconnection input × 1 (make-contact) Clock adjust signal input × 1 (make-contact) Mid-communication output × 1 (open collector output) Parallel data strobe output × 1 (open collector output), +12 V output (50 mA max.)
Sensor input/trigger output :	D-Sub 25-pin female, sensor input × 8 (make-contact) Trigger output × 8 (open collector output)
Host port :	RS-232C (D-Sub 9-pin male) or 4-wire RS-485 (RJ-11 connector), Rate = 4 800/9 600/19 200 bps, data length = 8-bit (fixed), Stop = 1-bit (fixed), Parity = NONE Note) RS-232C fixed or RS232C/RS485 changeover by DCD signal (Set with dip switches on the rear)

* Daisy chain not permissible.

Panasonic

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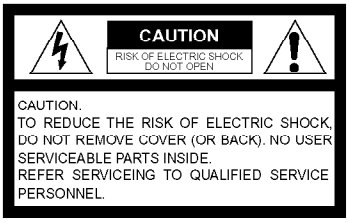
⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION.
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICEING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsuland voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.

This symbol alerts the user that impotant literature concerning the operation and maintenance of this has been included. Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are indicated by the "⚠" mark on the schematic diagram and the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent x-radiation, shock, fire, or other hazards. Do not modify the original design without permission of manufacture.

● **Operation System**

Remote control connector :	Rear: RJ-11 modular port, front: mini-DIN 5-conductor jack
ISDN terminating switch :	100 Ω termination ON/OFF
Host port, data port	
RS-485 terminating SW :	ON/OFF (Set with dip switches on the rear)
Data port RS485 line changeover SW :	Straight/crossover (Set with dip switches on the rear)

Note 1: Mutual connections with Codec by other firms are not guaranteed.
Note 2: In case of no ISDN, contract additional proceedings for subscription are required. This unit does not include the DSU (Digital Service Unit). The DSU is needed separately. The DSU to be used should be qualified as an electric communications terminal unit.

Weight and dimensions indicated are approximate.
Specifications are subject to change without notice.

STANDARD ACCESSORIES

Switch protector 1
Rack mount bracket 2
Mounting bracket screw (M3) 6
Power cord (2.5 m) 2
8-conductor modular cable (for ISDN network) (3 m) 1
6-conductor modular cable (for host RS-485 data port) (3 m) 1

* The figures given in the quantity column are per AV Codec.

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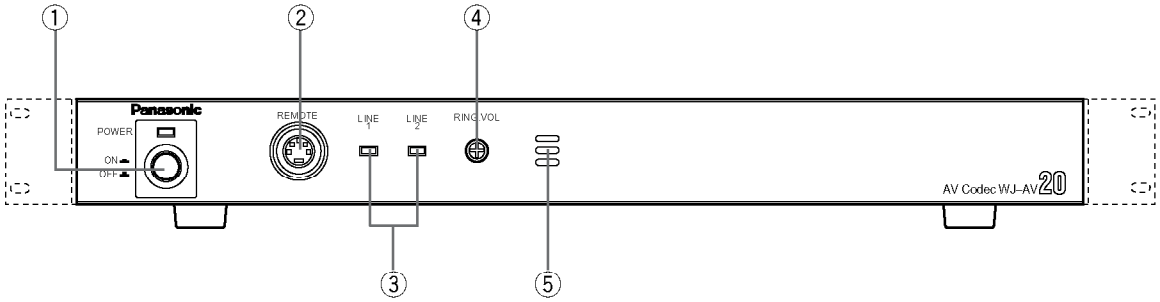
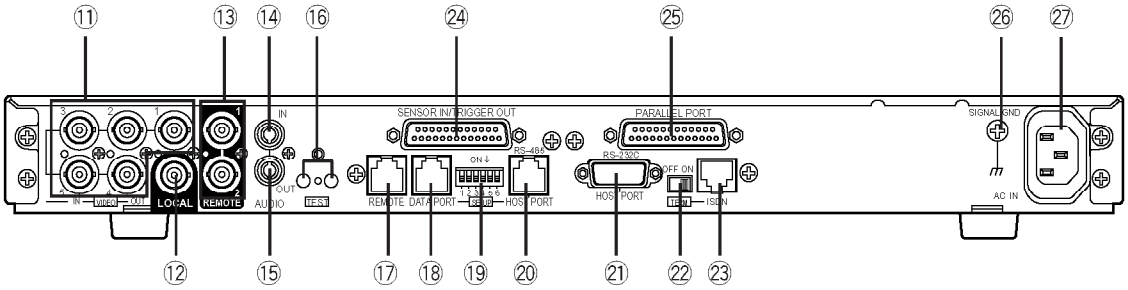
MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

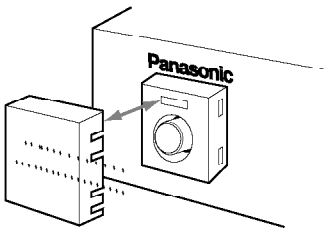
● Front View



● Rear View



① **Power Switch (POWER, ON / OFF)**
This switch is used to turn the WJ-AV20 AV Codec power on and off.
The LED indicator lights up while the codec power is turned on.
Note: To prevent the AC Codec power from being turned off accidentally, install the supplied switch protector as shown below.



② **Controller Jack (REMOTE)**
This jack is provided for controlling the AV Codec with the WV-CU20E Remote Controller.
To connect the controller, use a 6-conductor DIN cable supplied as an accessory with the controller.
If the controller is connected to the REMOTE port on the rear of the AV Codec, use a 6 conductor modular cable supplied as an accessory with the controller.

③ **Line Indicators (LINE1/LINE2)**
Indicates when the line is being used.

④ **Ringer Volume Control (RING VOL)**
This control is used to adjust the alert tone to the desired level for receiving calls.

⑤ **Ringer Buzzer**

⑪ **Video Input Connectors (VIDEO IN, 1 - 5)**
These connectors accept composite video signals from cameras.
When the Panasonic combination camera is connected to the VIDEO IN 1 connector, various controls, such as pan/tilt, zoom, focus and preset, are enabled from the WV-CU20E Remote Controller connected to the AV Codec.
The above functions are only available when a camera equipped with the specified function is connected to the VIDEO IN 1 connector.

⑫ **Local Output connector (LOCAL)**
The video signals, VIDEO IN 1 - 5, selected by the controller are looped through to this connector.
When the Video Monitor is connected to this, it displays the camera images at the local site selected by the controller.

⑬ **Remote Output Connectors (REMOTE, 1 - 2)**
The video signals, that are stored in the interna memory, are output to these connectors.
When the video monitors are connected to these connecters, the slow motion and poor resolution images can be displayed.
They also enable and disable the image display as shown below.
REMOTE 1: Enables display, such as setup menu, clock, etc.
REMOTE 2: Disables all on screen display.

⑭ **Audio Input Connector (AUDIO IN)**
Accepts audio signal from the outboard device. It is transmitted to the AUDIO OUT connector of the AV Codec at the destination site.
During transmission, when the AUDIO MUTE button on the controller is pressed, audio transmission is temporarily interrupted. Press the button again to release the mute mode.

⑮ **Audio Output Connector (AUDIO OUT)**
Outputs the audio transmitted from the destination site.
Enabling or disabling audio output depends on the settings at the destination site.
The audio input at the local site cannot be to output through this connector.

⑯ **Test Switch / Test LED (TEST)**
The maintenance (test) switch and LED should not be manipulated in ordinary operation.

⑰ **Controller Port (REMOTE)**
This port is provided for controlling the AV Codec with the WV-CU20E Remote Controller.
To connect to the controller, use a 6-conductor modular cable supplied as an accessory with the controller.

⑱ **Data Port (DATA PORT)**
Accepts a 6-conductor modular cable to exchange data conforming to an RS-485 interface.
It can be used to establish a system by connecting to outboard devices.

⑲ **Setup Switches (SETUP)**
These switches are used to select the mode of the AV Codec, such as line termination.

⑳ **RS-485 Host Port (RS-485 HOST PORT)**
This port is used when multiple WJ-AV20 units are controlled with a single control unit (PC, etc.).

㉑ **RS-232C Host Port (RS-232C HOST PORT)**
This port is used when the WJ-AV20 is controlled with a PC, etc.
Use a crossover cable for connecting to the PC port.

㉒ **Termination Selector (TERM, ON/OFF)**
This switch is used to enable termination of the ISDN line.
Setting to the ON position will make an internal 100 Ω termination.

㉓ **ISDN Port (ISDN)**
This port is used to connect with an ISDN line, using 8-conductor modular cable supplied as an accessory with the AV Codec.

㉔ **Sensor Input / Trigger Output Port (SENSOR IN/TRIGGER OUT)**
This port is used when the AV Codec is used as a transmitter (remote site).
It enables alarm dialing or camera switching when the associated alarm sensor is connected to this port.
When the trigger output is connected to an outboard device, such as a switcher, camera switching is remotely enabled from the AV Codec.

㉕ **Parallel Port (PARALLEL PORT)**
Exchanges 8-bit input and 8-bit output data with the destination (with strobe output).
This port is also provided with pins so that the signals shown below can be exchanged.
- Forced Disconnection input
- Time Adjustment input

㉖ **Signal Ground**

㉗ **AC Inlet Socket (AC IN)**
Plug the power cord (supplied as a standard accessory) into this socket and connect it to an AC outlet.

ADJUSTMENT PROCEDURE

1. Test Equipment Required

The following test equipments are required for adjustment of the AV Codec WJ-AV20.

- Frequency Counter
- Tamper Proof Screwdriver

2. Disassembling Procedure for Adjustment

- Referring to Fig. 2-1, remove eight screws(Upper x 2, left x 2, right x 2, Rear x 2) that secure the Upper Cover and remove the Upper Cover.

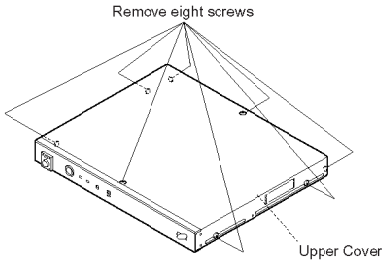


Fig. 2-1

3. Adjustment Procedure

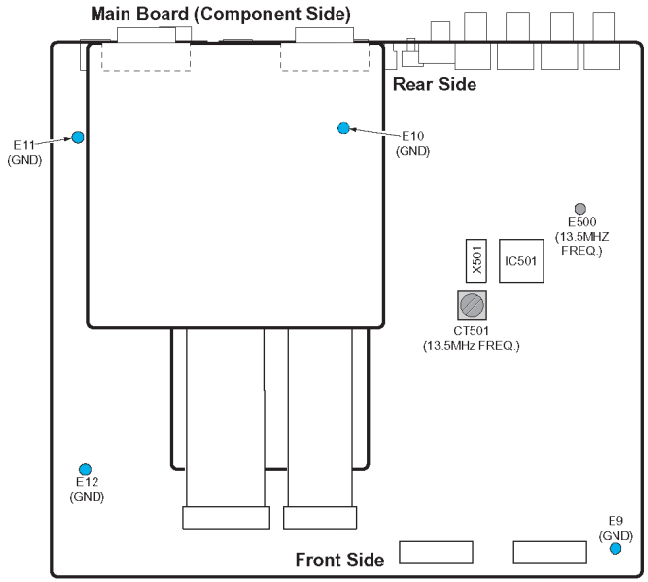
- This adjustment should be done after five to ten minutes warmup of the WJ-AV20.

(1) 13.5MHz Frequency Adjustment

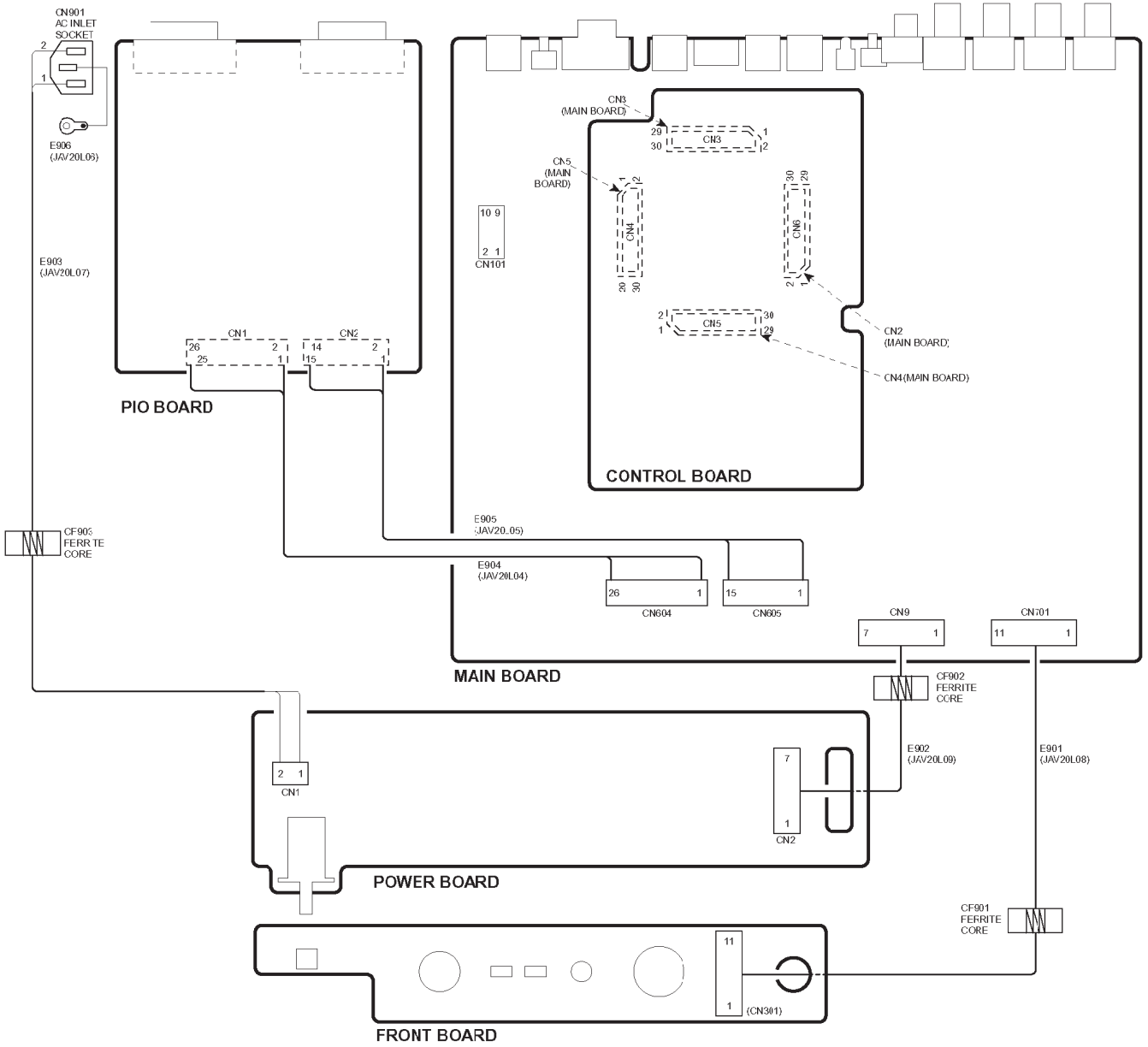
Test Point :	**E500 (13.5MHz FREQ.)**	**Main Board**
	E9,10,11 or 12 (GND)	**Main Board**
Adjust :	**CT501 (13.5MHz FREQ.)**	**Main Board**

- Disconnect all input signals from the WJ-AV20.
- Connect the Frequency Counter between E500 and E9,10,11 or 12.
- Adjust CT501 to obtain 13.500000MHz ± 50Hz.

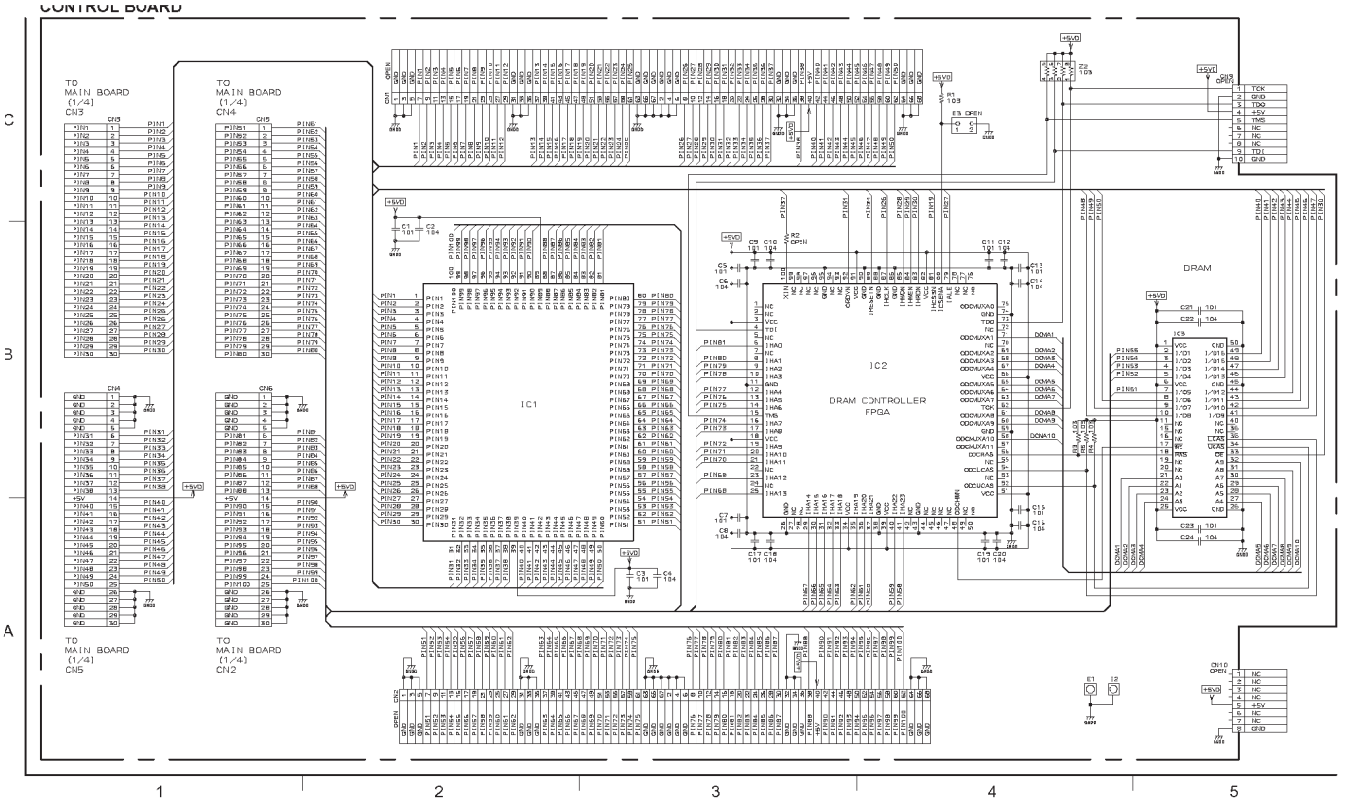
LOCATION OF TEST POINT AND ADJUSTING CONTROLS



WIRING DIAGRAM



SCHEMATIC DIAGRAM OF CONTROL BOARD



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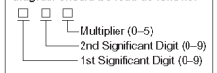
CONTROL BOARD

IC1	B2
IC2	B4
IC3	B5

Note:
The value indicated in the schematic diagram should be read as follows:

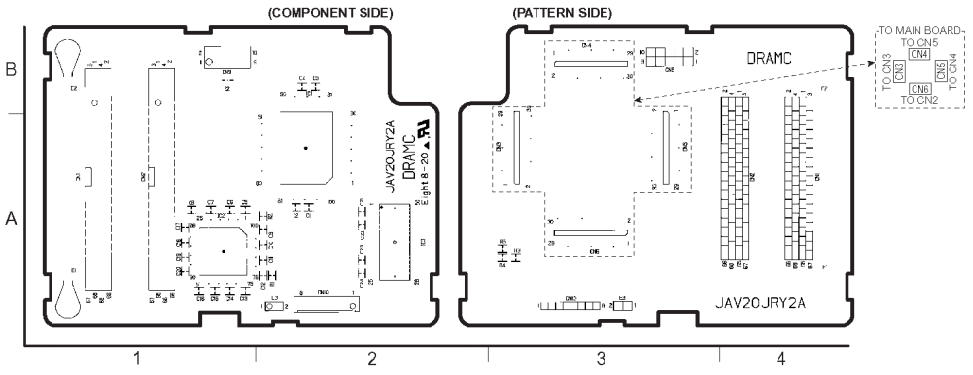


<Example>
For Resistor:
330 → 33 x 10^0 = 33 Ω
561 → 56 x 10^1 = 560 Ω
123 → 12 x 10^3 = 12k Ω
0R00=0 Ω

For Capacitor (Exclude Electrolyic and Tentalum Capacitor):
820 → 82 x 10^0 = 82PF
102 → 10 x 10^2 = 1,000PF = 0.001μF
104 → 10 x 10^4 = 100,000PF = 0.1μF

CONDUCTOR VIEW OF CONTROL BOARD

CONTROL BOARD



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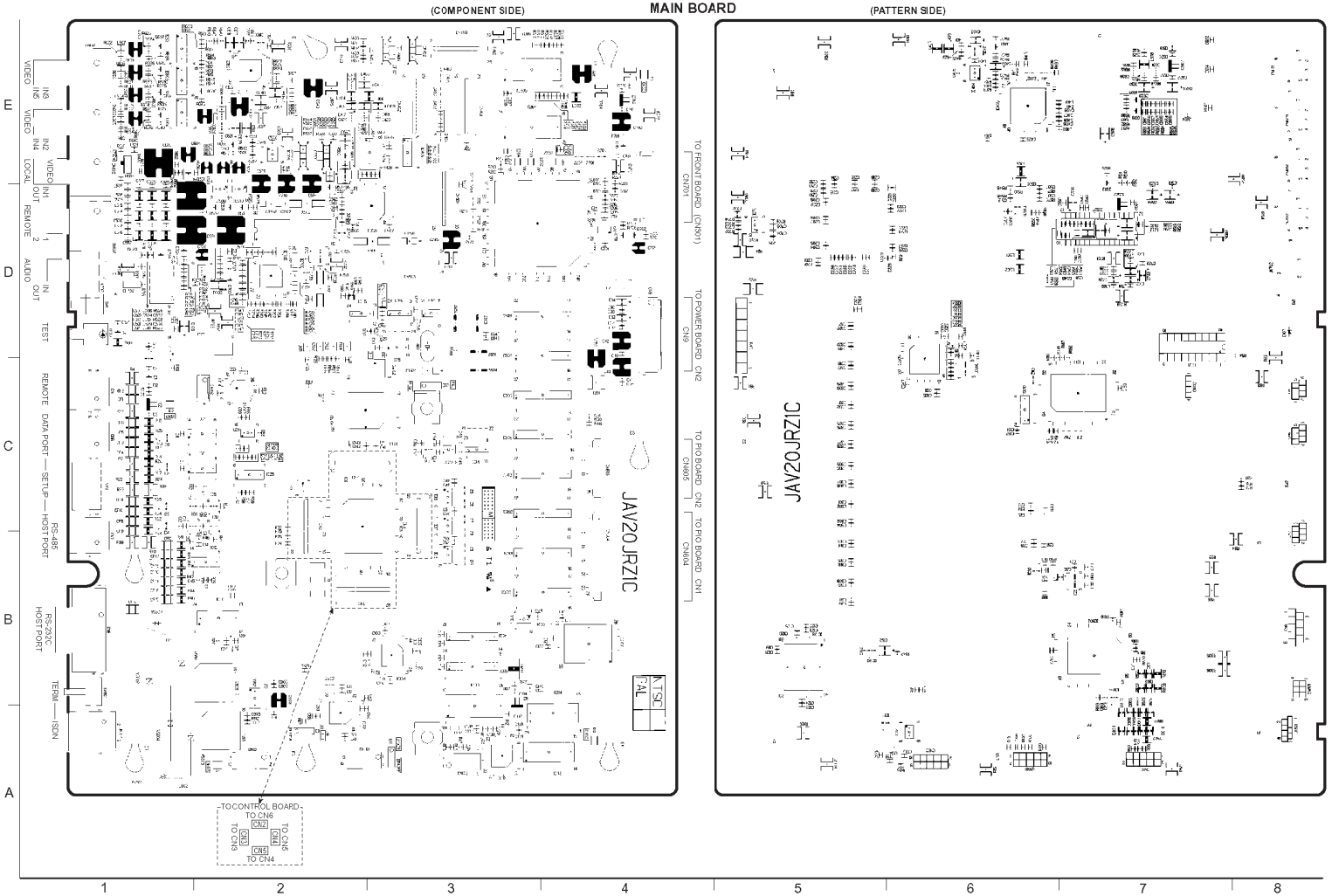
CONTROL BOARD

IC1	B2
IC2	A´
IC3	A2

CONDUCTOR VIEW OF MAIN BOARD



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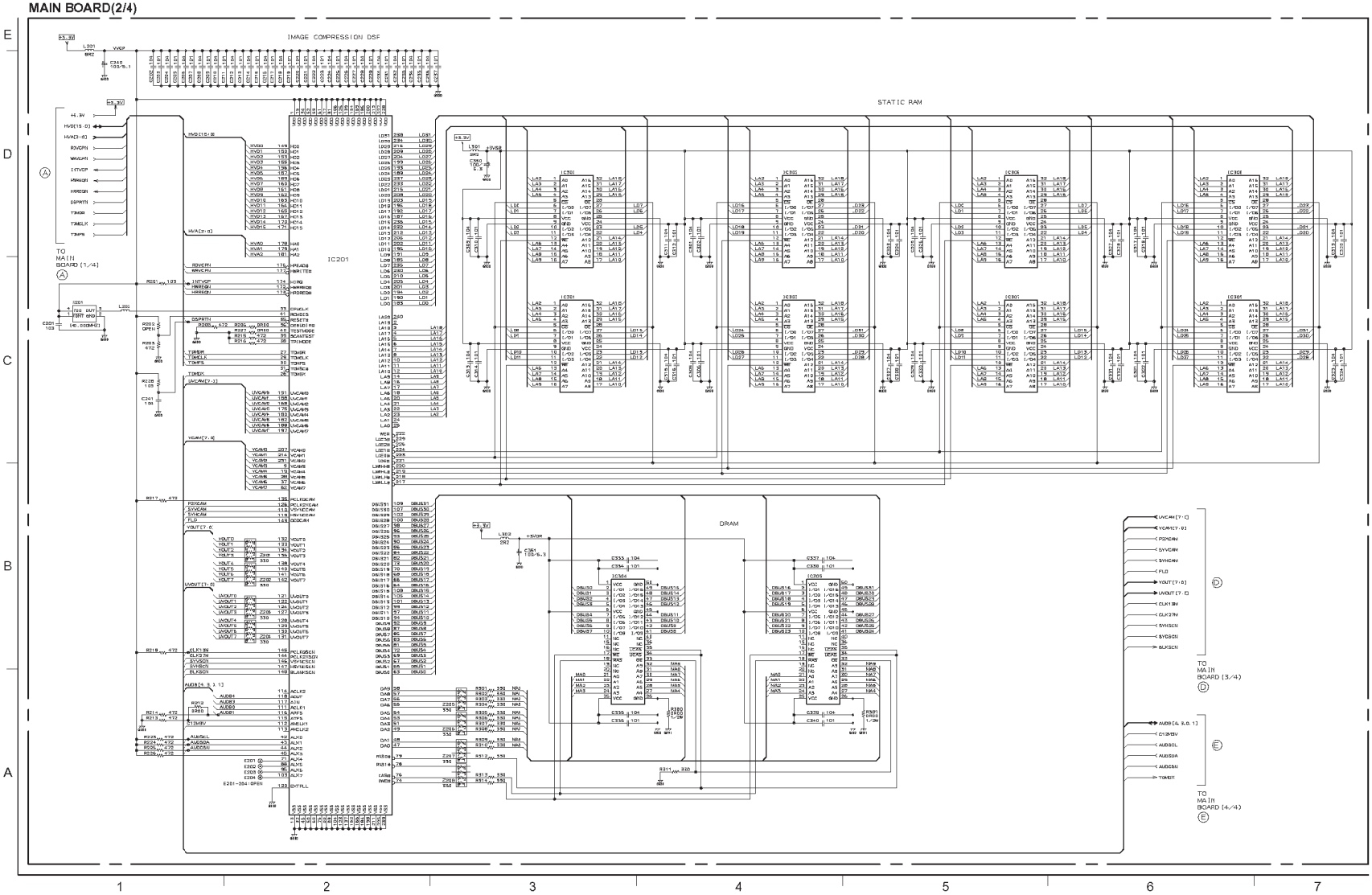
MAIN BOARD

IC1	C1	IC12	B2	IC23	C6	IC112	A6	IC300	A3	IC401	E6	IC509	D2	IC609	E2	IC801	B2	Q101	D1	Q605	E1	D1	C1	D106	D2	D802	B7	D812	B7
IC2	C1	IC13	B2	IC30	B6	IC113	A4	IC301	A3	IC404	E6	IC520	D7	IC610	E2	IC802	B7	Q401	E6	Q606	E2	D2	C1	D107	D1	D803	A7	D813	A7
IC3	C2	IC14	C3	IC101	D2	IC114	B3	IC302	C3	IC405	E6	IC601	E1	IC701	D5	IC803	B7	Q501	E2	Q607	E2	D3	C1	D501	D2	D804	A7	D814	A7
IC4	C2	IC15	D3	IC102	A3	IC115	D2	IC303	C3	IC406	E3	IC602	E1	IC704	D2			Q502	D2	Q608	E7	D4	C1	D502	D2	D805	A7		
IC5	C2	IC16	C3	IC103	B3	IC116	D3	IC304	E3	IC407	E3	IC603	E1	IC705	D2			Q503	E7	Q609	E7	D5	C1	D503	D2	D806	A7		
IC6	C2	IC17	C3	IC104	B3	IC117	C7	IC305	E3	IC501	D3	IC604	E2	IC706	D2			Q504	E2	Q701	D4	D101	D2	D701	E4	D807	A7		
IC7	C2	IC18	B3	IC105	B3	IC120	C6	IC306	C3	IC503	D6	IC605	C6	IC707	D2			Q601	E2	Q702	D4	D102	D2	D702	D2	D808	A7		
IC9	B7	IC20	C3	IC106	B3	IC121	D3	IC307	C3	IC506	E2	IC606	C6	IC708	E2			Q602	E1	Q703	D2	D103	D2	D703	D1	D809	A7		
IC10	C2	IC21	C3	IC107	B4	IC130	B5	IC308	D3	IC507	D2	IC607	E7	IC709	D2			Q603	E1			D104	D2	D704	D1	D810	A7		
IC11	C2	IC22	A2	IC110	A3	IC201	D4	IC309	D3	IC508	D2	IC608	E2	IC710	E4			Q604	E1			D105	D3	D801	B7	D811	B7		

SCHEMATIC DIAGRAM OF MAIN BOARD (2/4)



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MAIN BOARD (2/4)

IC201	C2	IC305	B4
IC300	D3	IC306	D5
IC301	C3	IC307	C5
IC302	D4	IC308	D6
IC303	C4	IC309	C6

Note: The value indicated in the schematic diagram should be read as follows:

- Multiplier (0–5)
- 2nd Significant Digit (0–9)
- 1st Significant Digit (0–9)

<Example>

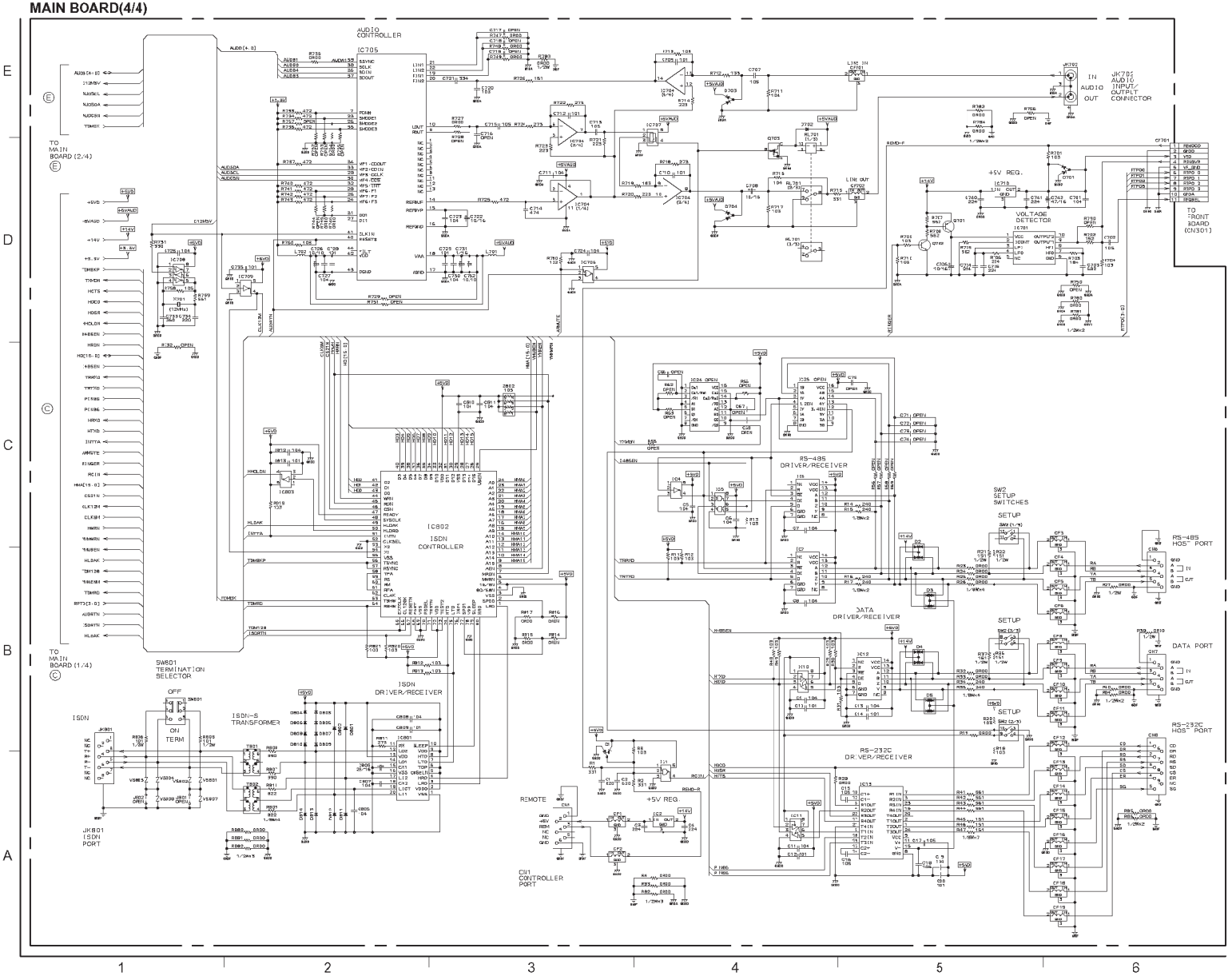
For Resistor:
330 → 33 x 10^0 = 33 Ω
561 → 56 x 10^1 = 560 Ω
123 → 12 x 10^3 = 12kΩ
0R00=0 Ω

For Capacitor (Exclude Electrolytic and Tantalum Capacitor):
820 → 82 x 10^0 = 82PF
102 → 10 x 10^2 = 1,000PF = 0.001μF
104 → 10 x 10^4 = 100,000PF = 0.1μF

For Coil:
270 → 27 x 10^0 = 27 μH
101 → 10 x 10^1 = 100 μH
8R2 = 8.2 μH

SCHEMATIC DIAGRAM OF MAIN BOARD (4/4)

MAIN BOARD(4/4)



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MAIN BOARD (4/4)

IC1	A4
IC2	A4
IC4	C4
IC5	C4
IC6	C4
IC7	B4
IC10	B4
IC11	A4
IC12	B5
IC13	A5
IC701	D5
IC704	D3,D4,E4
IC705	E2
IC706	D3
IC707	E4
IC708	D1
IC709	D2
IC710	D5
IC801	B2
IC802	C3
IC803	C2
Q701	D5
Q702	D5
Q703	D4
D1	B3
D2	C5
D3	B5
D4	B5
D5	B5
D701	D6
D702	E4
D703	E4
D704	D4
D801	B2
D802	B2
D803	B2
D804	B2
D805	B2
D806	B2
D807	B2
D808	B2
D809	B2
D810	B2
D811	A2
D812	A2
D813	A2
D814	A2

Note:
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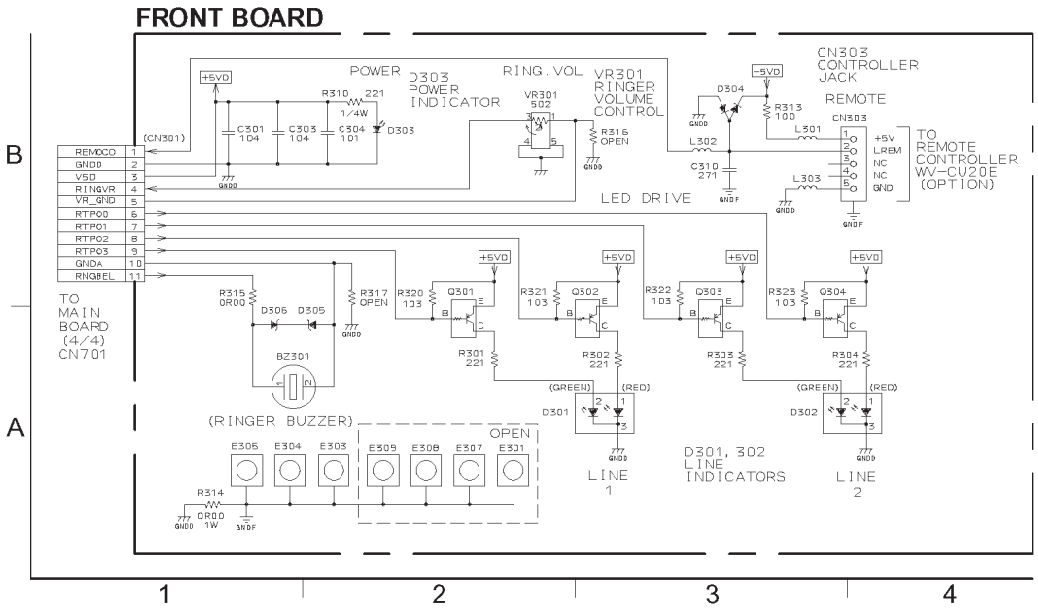
104 →10 x 10^4 = 100,000PF = 0.1μF

For Coil
270 →27 x 10^0 = 27 μH
101 →10 x 10^1 = 100 μH
8R2 =8.2 μH

SCHEMATIC DIAGRAM OF FRONT BOARD



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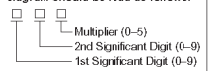
FRONT BOARD

Q301	B2
Q302	B3
Q303	B3
Q304	B3
D301	A2
D302	A3
D303	B2
D304	B3
D305	A2
D306	A1

Note:
The value indicated in the schematic diagram should be read as follows:



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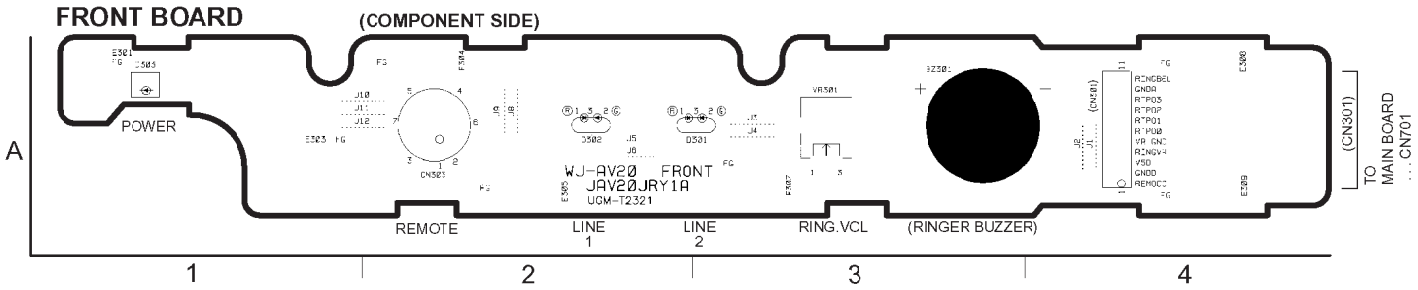
CONDUCTOR VIEW OF FRONT BOARD



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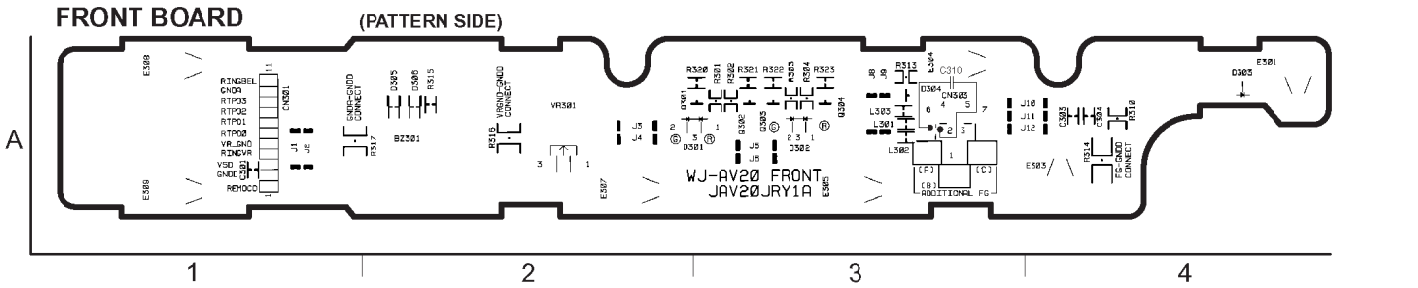
FRONT BOARD (COMPNENT SIDE)

D301	A3
D302	A2
D303	A1



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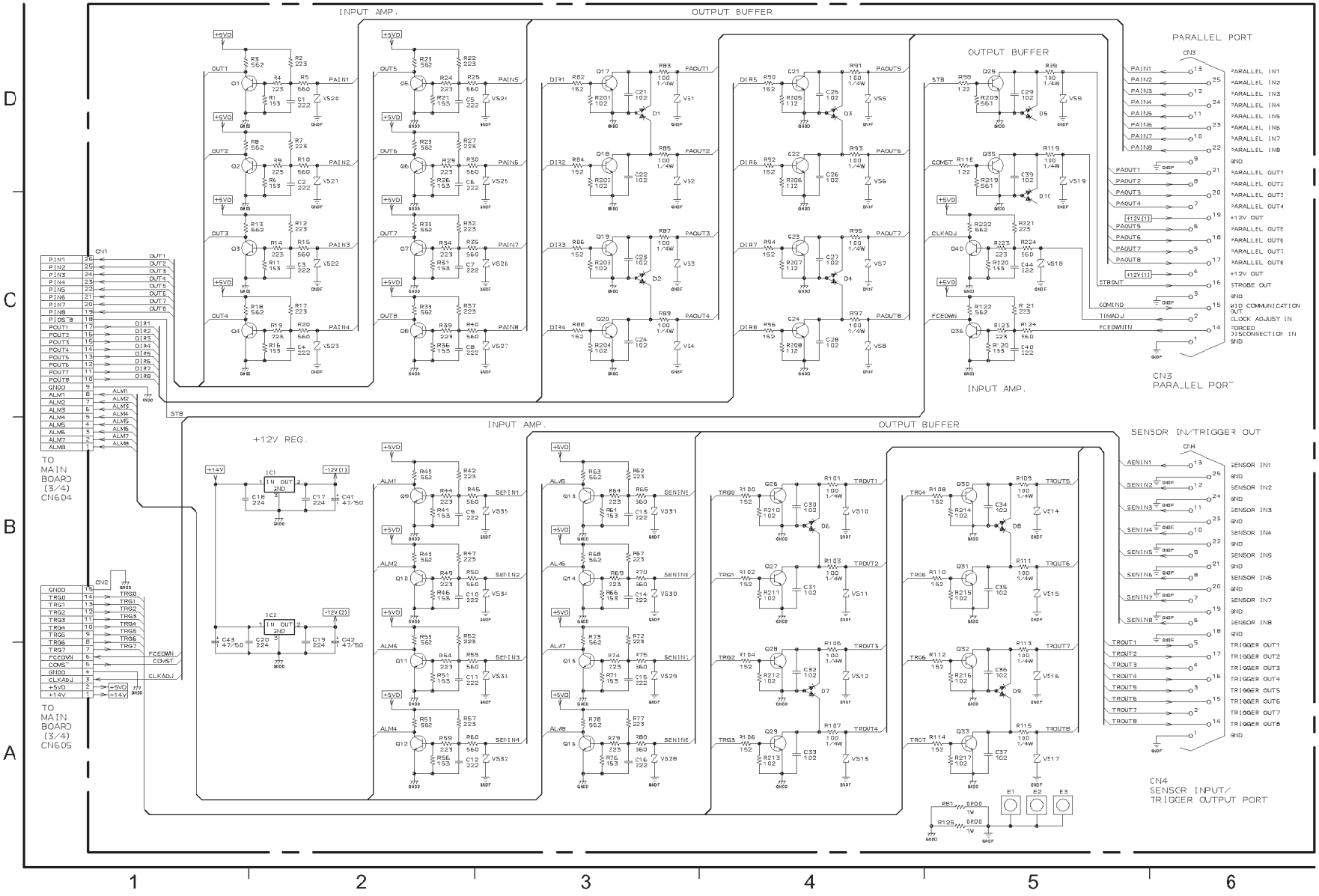
FRONT BOARD (PATTERN SIDE)

Q301	A2
Q302	A3
Q303	A3
Q304	A3
D304	A3
D305	A2
D306	A2

SCHEMATIC DIAGRAM OF PIO BOARD

PIO BOARD



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PIO BOARD

IC1	B2
IC2	B2
Q´	D1
Q2	D1
Q3	C1
Q4	C1
Q5	D2
Q6	D2
Q7	C2
Q8	C2
Q9	B2
Q´0	B2
Q´1	A2
Q´2	A2
Q´3	B3
Q´4	B3
Q´5	A3
Q´6	A3
Q´7	D3
Q´8	D3
Q´9	C3
Q20	C3
Q21	D4
Q22	D4
Q23	C4
Q24	C4
Q25	D5
Q26	B4
Q27	B4
Q28	A4
Q29	A4
Q30	B5
Q31	B5
Q32	A5
Q33	A5
Q35	D5
Q36	C5
Q40	C5
D1	D3
D2	C3
D3	D4
D4	C4
D5	D5
D6	B4
D7	A4
D8	B5
D9	A5
D10	C5

Note:
The value indicated in the schematic diagram should be read as follows:

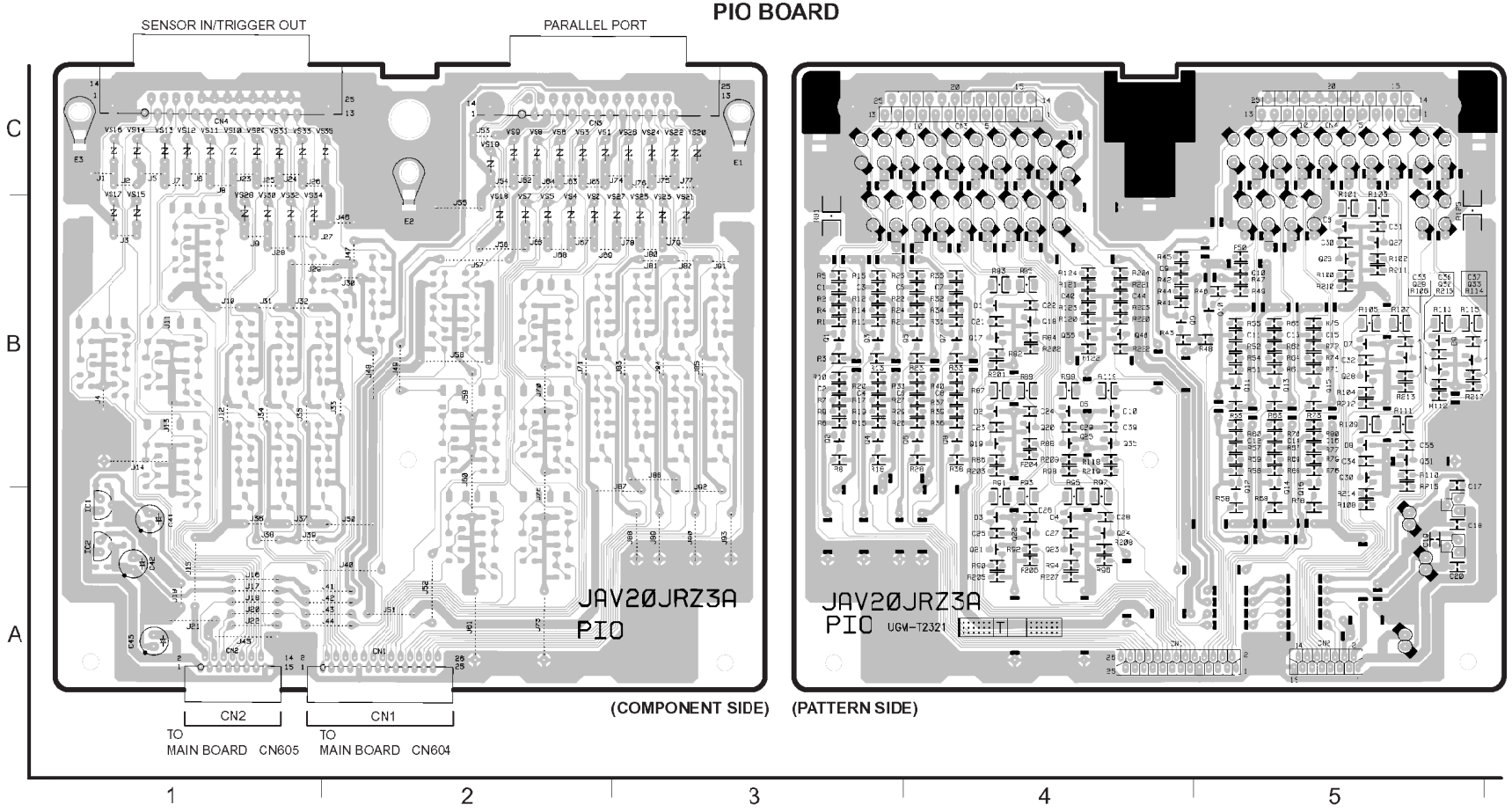
□ □ □
- Multiplier (0–5)
- 2nd Significant Digit (0–9)
- 1st Significant Digit (0–9)

<Example>
For Resistor:
330 → 33 x 10^0 = 23 Ω
561 → 56 x 10^1 = 560 Ω
123 → 12 x 10^3 = 12k Ω
0R00=0 Ω

For Capacitor (Exclude Electrolyic and Tantalum Capacitor):
820 → 82 x 10^0 = 82PF
102 → 10 x 10^2 = 1,000PF = 0.001μF
104 → 10 x 10^4 = 100,000PF = 0.1μF

CONDUCTOR VIEW OF PIO BOARD

PIO BOARD

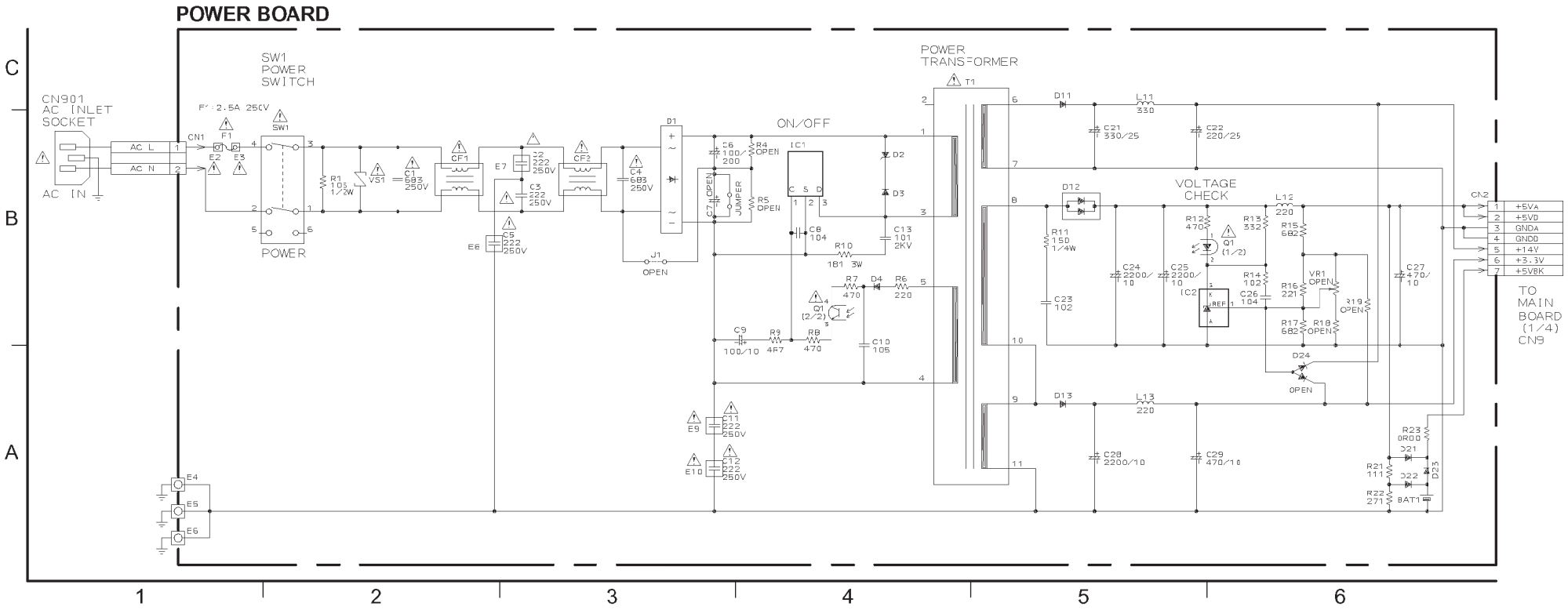


<Index>

PIO BOARD

IC1	A1
IC2	A1
Q1	B3
Q2	B3
Q3	B3
Q4	B3
Q5	B4
Q6	B4
Q7	B4
Q8	B4
Q9	B4
Q10	B5
Q11	B5
Q12	B5
Q13	B5
Q14	B5
Q15	B5
Q16	B5
Q17	B4
Q18	B4
Q19	B4
Q20	B4
Q21	A4
Q22	A4
Q23	A4
Q24	A4
Q25	B4
Q26	B5
Q27	B5
Q28	B5
Q29	B5
Q30	B5
Q31	B5
Q32	B5
Q33	B5
Q35	B4
Q36	B4
Q40	B4
D1	B4
D2	B4
D3	A4
D4	A4
D5	B4
D6	B5
D7	B5
D8	B5
D9	B5
D10	B4

SCHEMATIC DIAGRAM OF POWER BOARD



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POWER BOARD

IC1	B4	D3	B4	D21	A6
IC2	B5	D4	B4	D22	A6
Q1	B4,B6	D11	C5	D23	A6
D1	B3	D12	B5		
D2	B4	D13	A5		

Important safety notic
Components identified by "⚠" mark have special characteristics for safety.
When replacing any of these components, use only manufacture's specified parts.

Note: The value indicated in the schematic diagram should be read as follows:
□ □ □
Multiplier (0–5)
2nd Significant Digit (0–9)
1st Significant Digit (0–9)

<Example>

For Resistor:
330 → 33 x 10^0 = 33 Ω
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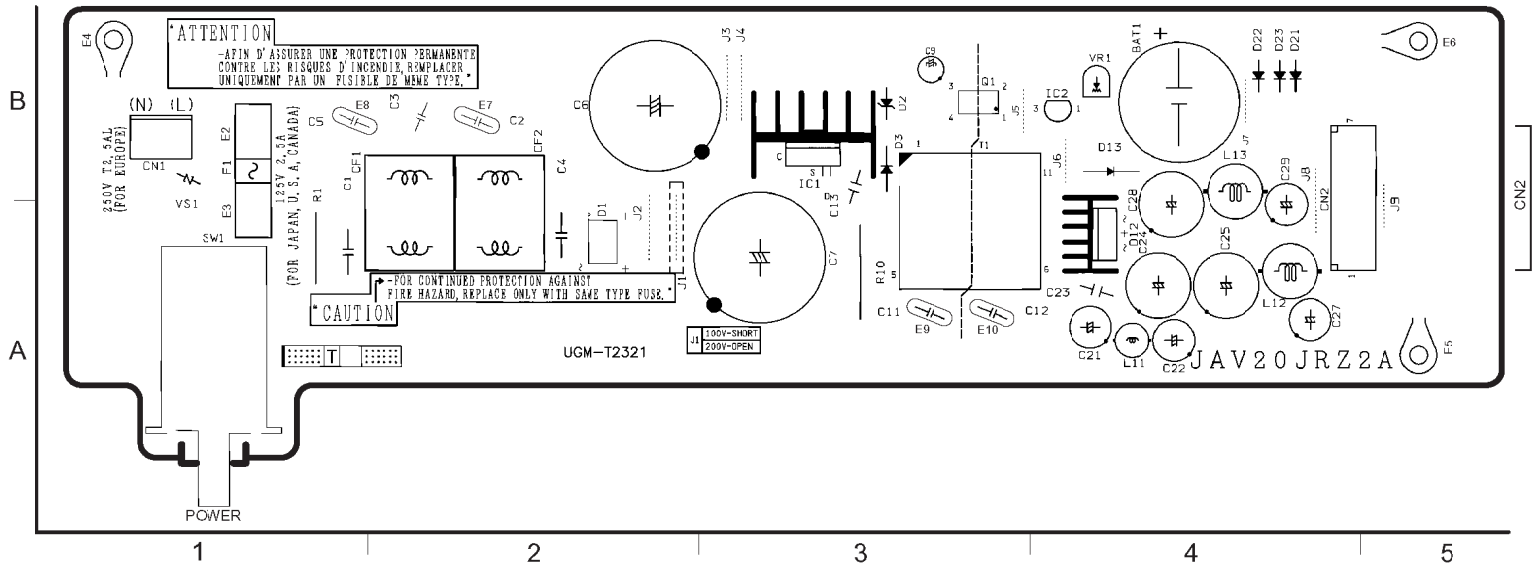
123 → 12 x 10^3 = 12kΩ
0R00=0Ω

For Capacitor (Exclude Electrolytic and Tantalum Capacitor):
820 → 82 x 10^0 = 82PF
102 → 10 x 10^2 = 1,000PF = 0.001μF
104 → 10 x 10^4 = 100,000PF = 0.1μF

For Coil:
270 → 27 x 10^0 = 27 μH
121 → 12 x 10^1 = 120 μH
8R2 = 8.2 μH

CONDUCTOR VIEW OF POWER BOARD

POWER BOARD (COMPONENT SIDE)



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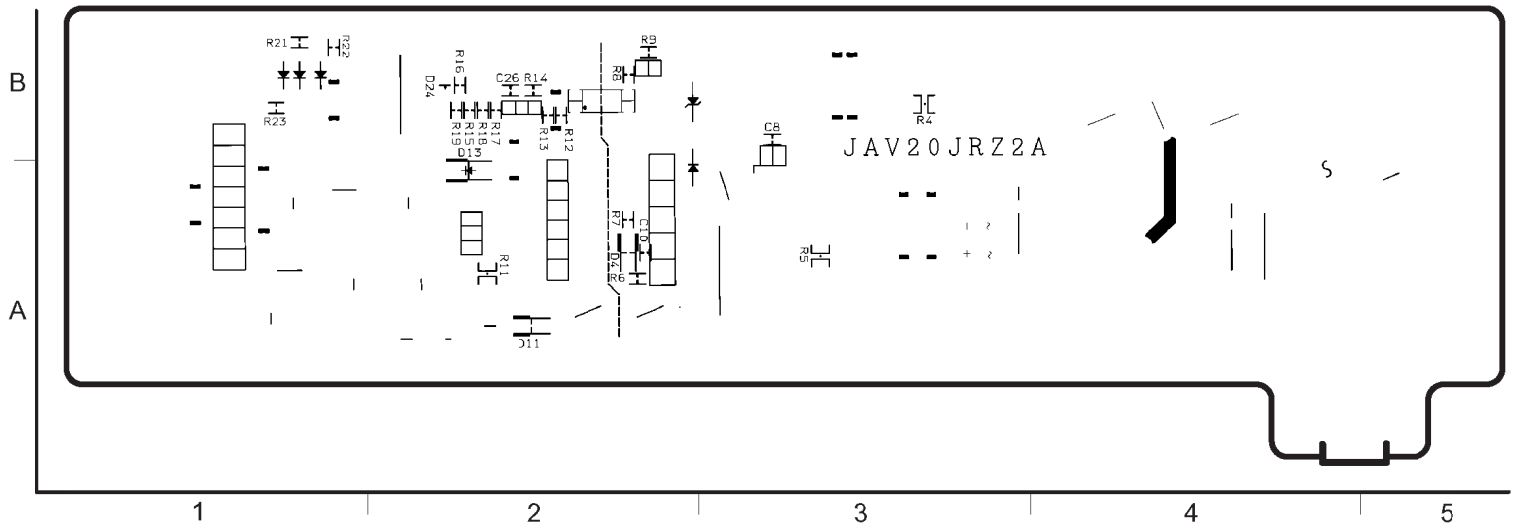
POWER BOARD (COMPONENT SIDE)

C1	B3
C2	B4
Q1	B3
D1	A2
D2	B3
D3	B3
D12	A4
D13	B4
D21	B4
D22	B4
D23	B4

POWER BOARD (PATTERN SIDE)



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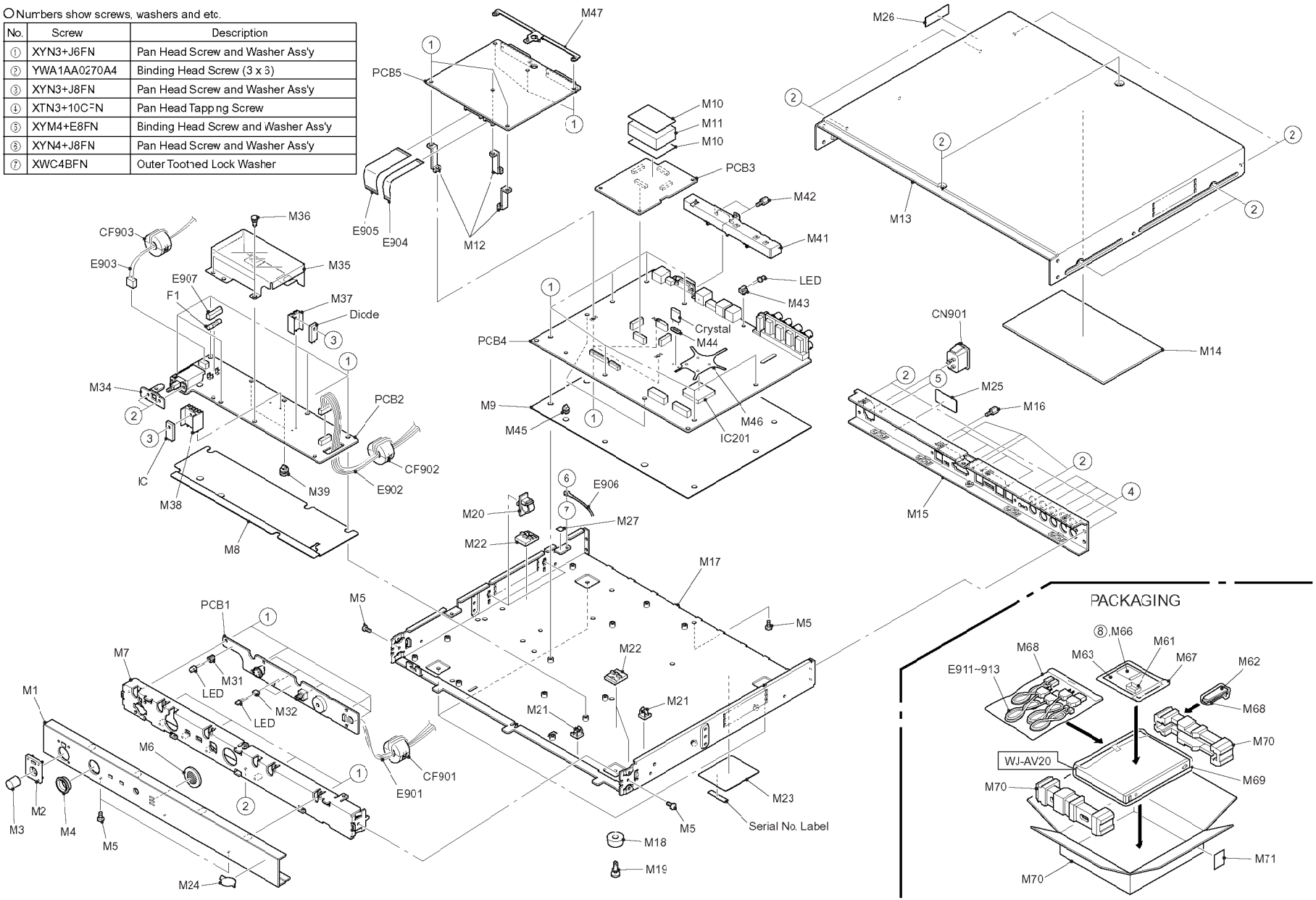
POWER BOARD (PATTERN SIDE)

D4	A2
D11	A2

EXPLODED VIEW

○ Numbers show screws, washers and etc.

No.	Screw	Description
①	XYN3+J6FN	Pan Head Screw and Washer Ass'y
②	YWA1AA0270A4	Binding Head Screw (3 x 3)
③	XYN3+J8FN	Pan Head Screw and Washer Ass'y
④	XTN3+10C□N	Pan Head Tapping Screw
⑤	XYM4+E8FN	Binding Head Screw and Washer Ass'y
⑥	XYN4+J8FN	Pan Head Screw and Washer Ass'y
⑦	XWC4BFN	Outer Toothed Lock Washer



REPLACEMENT PARTS LIST

Important Notice

1. Components identified by " ⚠ " mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
2. RTL : Retention Time Limited (No longer available after discontinuing product).

REF. NO.	PART NO.	DESCRIPTION
MISCELLANEOUS		
CF901,903	J0KG00000026	Ferrite Core
CF902	J0KG00000028	Ferrite Core
F1 ⚠	XBA2C25ET0A	Current Fuse 2.5A 250V
CN901 ⚠	K2AZ3G000001	AC Inlet Socket
E901	JAV20L08	Wire Ass'y for Main Board CN701 and Front Board CN301
E902	JAV20L09	Wire Ass'y for Main Board CN9 and Power Board CN2
E903	JAV20L07	Wire Ass'y for AC Inlet Socket and Power Board CN1
E904	JAV20L04	Wire Ass'y for Main Board CN604 and PIO Board CN1
E905	JAV20L05	Wire Ass'y for Main Board CN605 and PIO Board CN2
E906	JAV20L06	Wire Ass'y for AC Inlet Socket and Flame Ground
E907	YW840522	Fuse Cover for F1
M1	V5WC2513A1	Front Panel
M2	YWV5CA0504B2	Switch Guard
M3	YWA5RG0141A3	Button for Power Switch
M4	YWV6JA1151A3	Guide for Remote Controller
M5	YWV1AA1074A4	Standard Screw
M6	YWV7AA1053A4	Sound Filter for Buzzer
M7	YWV2KA1258A1	Front Chassis
M8	YWV2PA1207A3	Insulator Seet for Power Board
M9	YWV2PA1206A2	Insulator Seet for Main Board
M10	YWV2PA1227A4	Insulator Paper
M11	YWV2FA1247A4	Cushion
M12	YWV2SA4683A4	Mounting Angle for PIO Board
M13	YWV5EB2355A1	Upper Cover
M14	YWV2PA1218A3	Insulator Seet for PIO Board
M15	V5WC2512A1	Rear Panel
M16	YWXM2Z0021	Special Screw
M17	YWV2KC1233B1	Main Chassis
M18	YWV5LA0067A4	Rubber Foot
M19	YWA2LA0070A4	Joint for Rubber Foot
M20	YWCKT7V0	Cord Clamp
M21	YWMN3V0	Wire Clamp
M22	TFB2024A	Ferrite Clamp for CF901-903
M23	V7QA5366A4	Main Label
M24	YWV7SA4022A4	Name Label
M25	V7SA4084A4	IC Label
M26	YFV7MB0099A4	Safety Label
M27	YWA7SA0689A4	Earth Label

REF. NO.	PART NO.	DESCRIPTION	
FRONT BOARD			
PCB1 (RLT)	JAV20GKY1A	Printed Circuit Board Ass'y	
Q301-304	B1GDCFJA0002	Transistor	
D301,302	YWSPB25MVW	LED	
D303	LN348GPLS	LED	
D304	MA157	Diode	
D305,306	B0BC01400012	Diode	
R301-304	ERJ8GCSG221	Carbon	220 ohms 1/8W
R310	ERJ14YJ221H	Carbon	220 ohms 1/4W
R313	ERJ8GEYJ100	Carbon	10 ohms 1/8W
R314	ERJ1WY0R00H	Carbon	0 ohm 1W
R315	D0YDR0000013	Carbon	0 ohm 1/10W
R320-323	ERJ6GEYJ103V	Carbon	10K ohms 1/10W
VR301	D2BDA53A0001	Variable Resistor	5K ohms
C301,303	YF400104FZT	Ceramic	0.1 µF
C304	F1J1H101A410	Ceramic	100 pF
C310	ECCF1H271JC4	Ceramic	270 pF
L301-303	J0JCC0000003	Coil	
CN303	YWTCS7658	5-pin DIN Connector	
BZ301	PKM22EPP4002	Buzzer	
E303-305	YWMEP1866	Earth Terminal	
M31	YWLDS80P	LED Holder	
M32	YWLK366	LED Spacer	
POWER BOARD			
PCB2 (RTL)	JAV20GKZ2A	Printed Circuit Board Ass'y	
IC1	MIP0224SY	IC	
IC2	YWTA76431S	IC	
Q1 ⚠	YWPC123FY2	Photo Coupler	
D1	YWDB155G	Diode	
D2	YWP6KE180A	Diode	
D3	YWERB3710	Diode	
D4	YWSC2012	Diode	
D11	B0HCMM000003	Diode	
D12	YWSF10SC6	Diode	
D13	YWERC84009	Diode	
D21-23	MA723	Diode	
VS1 ⚠	YWJ07N471KP	Varistor	
R1	ERC12ZGM105	Solide Resistor	1M ohms 1/2W
R6	ERJ6GEYJ220V	Carbon	22 ohms 1/10W
R7,8	YF2116470JT	Carbon	47 ohms 1/10W
R9	ERJ6GEYJ4R7V	Carbon	4.7 ohms 1/10W
R10	ERG3SJ181P	Metal	180ohms 3W
R11	ERJ14YJ150	Carbon	15 ohms 1/4W
R12	YF2116470JT	Carbon	47 ohms 1/10W

REF. NO.	PART NO.	DESCRIPTION	
R13	ERJ6GEYJ332V	Carbon	3.3K ohms 1/10W
R14	ERJ6GEYJ102V	Carbon	1K ohms 1/10W
R15	ERA6YED682V	Metal	6.8K ohms 1/10W
R16	ERJ6GEYJ221V	Carbon	220 ohms 1/10W
R17	ERA6YED682V	Metal	6.8K ohms 1/10W
R21	ERJ6GEYJ111	Carbon	110 ohms 1/10W
R22	YF2116271JT	Carbon	270 ohms 1/10W
R23	ERJ6GEY0R00	Carbon	0 ohm 1/10W
C1 ⚠	ECQU2A683MV	Plastic	0.068 µF 250V
C2,3 ⚠	ECKDRS222MEY	Ceramic	2200 pF 250V
C4 ⚠	ECQU2A683MV	Plastic	0.068 µF 250V
C5 ⚠	ECKDRS222MEY	Ceramic	2200 pF 250V
C6	ECOS2GA101CB	Electrolytic	100 µF 400V
C8	MCUV1E104KBN	Ceramic	0.1 µF
C9	EEUEB1A101	Electrolytic	100uF 10V
C10	F1J1C105A004	Ceramic	1 µF
C11,12 ⚠	ECKDRS222MEY	Ceramic	2200 pF 250V
C13	ECKD3D101KBP	Ceramic	100 pF 2KV
C21	EEUFC1E331LE	Electrolytic	330 µF 25V
C22	EEUFC1E221E	Electrolytic	220 µF 25V
C23	ECKDHT102KB	Ceramic	1000 pF
C24,25	EEUFC1A222	Electrolytic	2200 µF 10V
C26	MCUV1E104KBN	Ceramic	0.1 µF
C27	EEUFC1A471E	Electrolytic	470 µF 10V
C28	EEUFC1A222	Electrolytic	2200 µF 10V
C29	EEUFC1A471E	Electrolytic	470 µF 10V
L11	YWSL675330	Coil	33 uH
L12,13	YWSL1011220	Coil	22 µH
T1 ⚠	G4D2A0000020	Power Transformer	
SW1 ⚠	YWSDDFA3	Power Switch	
CF1,2 ⚠	YW0R5A183F20	Line Filter	
CN1	YWB2P3VII	2-pin Connector	
CN2	K1KA07A00009	7-pin Connector	
BAT1	YWVL2330-1HF	Storage Battery	
E2,3 ⚠	K3GE1BB00004	Fuse Holder for F1	
E4-6	YWMEP1866	Earth Terminal	
E7-10	YW851040	Capacitor Cover for C2,5,11,12	
M34	V2SA4843A4	Mounting Angle for Power Switch	
M35	YWV2PA1208B3	Insulator Cover	
M36	YWP4050	Push Rivet	
M37	YWV7DA0193A4	Heat Sink for Diode	
M38	YWV7DA0045A4	Heat Sink for IC	
M39	YW2J08	Support	

CONTROL BOARD

PCB3(RTL)	JAV20JKY2A	Printed Circuit Board Ass'y	
IC1	C2CBYF000012	IC	
IC2	C1ZBZ0001193	IC	
IC3	C3ABMG000037	IC	
R1,3	ERJ6GEYJ103V	Carbon	10K ohms 1/10W
R4,5	ERJ6GEYJ103V	Carbon	10K ohms 1/10W
Z2	YWMNR14EJ103	Block Resistor	10K ohms
C1	F1J1H101A410	Ceramic	100 PF
C2	YF400104FZT	Ceramic	0.1 µF
C3	F1J1H101A410	Ceramic	100 PF
C4	YF400104FZT	Ceramic	0.1 µF
C5	F1J1H101A410	Ceramic	100 PF
C6	YF400104FZT	Ceramic	0.1 µF
C7	F1J1H101A410	Ceramic	100 PF
C8	YF400104FZT	Ceramic	0.1 µF
C9	F1J1H101A410	Ceramic	100 PF
C10	YF400104FZT	Ceramic	0.1 µF
C11	F1J1H101A410	Ceramic	100 PF
C12	YF400104FZT	Ceramic	0.1 µF
C13	F1J1H101A410	Ceramic	100 PF
C14	YF400104FZT	Ceramic	0.1 µF
C15	F1J1H101A410	Ceramic	100 PF
C16	YF400104FZT	Ceramic	0.1 µF
C17	F1J1H101A410	Ceramic	100 PF
C18	YF400104FZT	Ceramic	0.1 µF
C19	F1J1H101A410	Ceramic	100 PF
C20	YF400104FZT	Ceramic	0.1 µF
C21	F1J1H101A410	Ceramic	100 PF
C22	YF400104FZT	Ceramic	0.1 µF
C23	F1J1H101A410	Ceramic	100 PF
C24	YF400104FZT	Ceramic	0.1 µF
CN3-6	YW61763130	30-pin Connector	
E1,2	YWMEP1866	Earth Terminal	

MAIN BOARD

PCB4 (RTL)	JAV20JKZ1B	Printed Circuit Board Ass'y	
IC1	YWTC7S00FL	IC	
IC2	YW78L05UATE2	IC	
IC3	C0JBAZ000958	IC	
IC4	C0JBAB000171	IC	
IC5	YWTC7W08FUL	IC	
IC6,7	SN75ALS181NS	IC	
IC9	YWTC7WU04FL	IC	
IC10	C0JBAZ000090	IC	
IC11	C0JBAZ000279	IC	
IC12	SN75ALS181NS	IC	
IC13	YWHIN208ECB	IC	
IC14,15	C0JBAZ000956	IC	
IC16-18	C0JBAZ000122	IC	
IC20	C0JBAN000117	IC	
IC21	C0JBAN000118	IC	
IC22	C1ZBZ0001165	IC	
IC23	C0JBAB000202	IC	
IC30	YWTC7S32FL	IC	
IC101	YWMSM62X42BR	IC	
IC102	C0EBJ0000045	IC	
IC103	C0EBB0000016	IC	
IC104	C1ZBZ0001205	IC	
IC105,106	C3BBEC000007	IC	
IC107	C3FBMD000028	IC	
IC110	C1ZBZ0001243	IC	
IC112	74HC138ADTE	IC	
IC113,114	C3BBFC000122	IC	
IC115,116	C0JBAZ000957	IC	
IC117	YWM66500FP	IC	

REF. NO.	PART NO.	DESCRIPTION
IC120	YWTC74HC07AF	IC
IC121	C0JBAZ000545	IC
IC130	C0JBAA000097	IC
IC201	C1GB00000027	IC
IC300-303	C3BBHC000133	IC
IC304,305	C3ABMG000036	IC
IC306-309	C3BBHC000133	IC
IC401	YWTC4W53FUL	IC
IC404	YWMC14577CF	IC
IC405	C1AB00000350	IC
IC406,407	C0JBAZ000443	IC
IC501	C1AB00000349	IC
IC503	YWTC7S32FL	IC
IC506	YWMC14577CF	IC
IC507	YWM35060058	IC
IC508,509	YWBA7622F	IC
IC520	YW78L05UATE2	IC
IC601-603	YWMCHC4051F	IC
IC604	YWUPC5022094	IC
IC605	C1AB00000184	IC
IC606	YWTC7WU04FL	IC
IC607	C0CBAHC00004	IC
IC608	C0JBAB000171	IC
IC609,610	C0JBAA000097	IC
IC701	C1CB00000440	IC
IC704	C0ABBB000081	IC
IC705	C1BB00000259	IC
IC706	C0JBAA000115	IC
IC707	YWTC7S66FUL	IC
IC708	YWTC7WU04FL	IC
IC709	C0JBAB000202	IC
IC710	YW78L05UATE2	IC
IC801	YWYTD421B	IC
IC802	C1CB00000465	IC
IC803	C0JBAB000171	IC
Q101	B1GDCFJA0002	Transistor
Q401	B1ABCF000056	Transistor
Q501,502	2SD601-RS	Transistor
Q503	2SB709-Q	Transistor
Q504	B1ABCF000056	Transistor
Q601-605	2SD601-RS	Transistor
Q606	2SB709-Q	Transistor
Q607	B1ABCF000056	Transistor
Q608,609	B1BBAC000009	Transistor
Q701	B1ADBD000005	Transistor
Q702	2SD601-RS	Transistor
Q703	B1GBCFJJ0012	Transistor
D1	MA157	Diode
D2	B0ADBJ000002	Diode
D3	B0ADBJ000004	Diode
D4	B0ADBJ000002	Diode
D5	B0ADBJ000004	Diode
D101-104	LN1261CTR	LED
D105,106	MA2Z11200L	Diode
D107	LN29RPX	LED

REF. NO.	PART NO.	DESCRIPTION	
D501-503	MA157	Diode	
D701	MA157	Diode	
D702	YWSFPM62V	Diode	
D703,704	B0ADCJ000015	Diode	
D801-814	MA2Z11200L	Diode	
VS801-804	J0LH00000004	Varistor	
VS807,808	ERZV10D391	Varistor	
R1,2	ERJ3GEYJ331V	Carbon	330 ohms 1/16W
R3	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R4	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R10-13	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R14-17	ERJ8GEYJ240	Carbon	24 ohms 1/8W
R18	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R19	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R20	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R21,22	ERJ12YJ151H	Carbon	150 ohms 1/2W
R23-26	ERJ8GEY0R00V	Carbon	0 ohm 1/8W
R27	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R28	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R29-31	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R32,33	ERJ8GEY0R00V	Carbon	0 ohm 1/8W
R34,35	ERJ8GEYJ240	Carbon	24 ohms 1/8W
R36,37	ERJ12YJ151H	Carbon	150 ohms 1/2W
R39,40	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R41-44	ERJ8GEYJ561V	Carbon	560 ohms 1/8W
R45-47	ERJ8GCSG151	Carbon	150 ohms 1/8W
R48-50	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R54	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R60	ERJ3GEYJ105V	Carbon	1M ohms 1W
R61	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R64,65	ERJ1WY0R00H	Carbon	0 ohm 1W
R67-75	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R80-87	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R88	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R90	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R101,102	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R103	ERJ3GEYJ123V	Carbon	12K ohms 1/16W
R104-119	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R120,121	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R125-128	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R130,131	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R140-142	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R150-152	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R183-185	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R186-188	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R189	ERJ8GCSG221	Carbon	220 ohms 1/8W
R190-193	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R201	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R203,205	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R206,212	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R213-218	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R223-226	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R227	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R228	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R301-314	ERJ3GEYJ330V	Carbon	33 ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION	
R380,381	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R401,402	ERJ3GEYJ512V	Carbon	5.1K ohms 1/16W
R403	ERJ3GEYJ202V	Carbon	2K ohms 1/16W
R404	ERJ3GEYJ821V	Carbon	820 ohms 1/16W
R405	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R406	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R407	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R408	ERJ3GEYJ621V	Carbon	620 ohms 1/16W
R409	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R410,411	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R415	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R416-422	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R424,427	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R429	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R433-436	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R480	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R482,483	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R501	ERJ3GEYJ151V	Carbon	150 ohms 1/16W
R502	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R503	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R504	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R505	ERJ3GEYJ512V	Carbon	5.1K ohms 1/16W
R506	ERJ3GEYJ202V	Carbon	2K ohms 1/16W
R507	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R508	ERJ3GEYJ561V	Carbon	560 ohms 1/16W
R509	ERJ3GEYJ471V	Carbon	470 ohms 1/16W
R510	ERJ3GEYJ562V	Carbon	5.6K ohms 1/16W
R511	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R513	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R514	ERJ3GEYJ242V	Carbon	2.4K ohms 1/16W
R515	ERJ3GEYJ302V	Carbon	3K ohms 1/16W
R516	ERJ3GEYJ470V	Carbon	47 ohms 1/16W
R517	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R518,519	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R520	ERJ3GEYJ683V	Carbon	68K ohms 1/16W
R521	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R522	ERJ3GEYJ333V	Carbon	33K ohms 1/16W
R523-525	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R526-528	ERJ14YJ750H	Carbon	75 ohms 1/4W
R529	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R530	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R543	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R544	ERJ3GEYJ512V	Carbon	5.1K ohms 1/16W
R545	ERJ3GEYJ204V	Carbon	200K ohms 1/16W
R546,547	ERJ3GEYJ104V	Carbon	100K ohms 1/16W
R548	ERJ3GEYJ204V	Carbon	200K ohms 1/16W
R551	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R570,571	ERJ3GEYJ101V	Carbon	100 ohms 1/16W
R572	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R580-582	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R601,602	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R603	ERJ3GEYJ222V	Carbon	2.2K ohms 1/16W
R604	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R605	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R606	ERJ3GEYJ271V	Carbon	270 ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION	
R608	ERJ3GEYJ473V	Carbon	47K ohms 1/16W
R610,611	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R613-615	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R616,617	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R620	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R621,622	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R623	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R624	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R625	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R626	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R627	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R628	ERJ3GEYJ271V	Carbon	270 ohms 1/16W
R629	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R630	ERJ3GEYJ271V	Carbon	270 ohms 1/16W
R633	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R634,635	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R636	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R637	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R638	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R639	ERJ3GEYJ271V	Carbon	270 ohms 1/16W
R640	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R641	ERJ3GEYJ750V	Carbon	75 ohms 1/16W
R642	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R643	ERJ3GEYJ271V	Carbon	270 ohms 1/16W
R644	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R645	ERJ3GEYJ271V	Carbon	270 ohms 1/16W
R646	ERJ3GEYJ392V	Carbon	3.9K ohms 1/16W
R648,649	ERJ3GEYJ152V	Carbon	1.5K ohms 1/16W
R650	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R651	ERJ3GEYJ821V	Carbon	820 ohms 1/16W
R652,653	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R654	ERJ3GEYJ222V	Carbon	2.2K ohms 1/16W
R655	ERJ3GEYJ101V	Carbon	100 ohms 1/16W
R656	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R660	ERJ3GEYJ331V	Carbon	330 ohms 1/16W
R661	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R662	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R663	ERJ3GEYJ222V	Carbon	2.2K ohms 1/16W
R664	ERJ3GEYJ223V	Carbon	22K ohms 1/16W
R665	ERJ3GEYJ682V	Carbon	6.8K ohms 1/16W
R667	ERJ3GEYJ105V	Carbon	1M ohms 1/16W
R668	ERJ3GEYJ563V	Carbon	56K ohms 1/16W
R669	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R670,671	ERJ3GEYJ563V	Carbon	56K ohms 1/16W
R680	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R681	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R682,683	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R690	ERJ3GEYJ391V	Carbon	390 ohms 1/16W
R691	ERJ3GEYJ362V	Carbon	3.6K ohms 1/16W
R692	ERJ3GEYJ272V	Carbon	2.7K ohms 1/16W
R693	ERJ3GEYJ271V	Carbon	270 ohms 1/16W
R694	ERJ3GEYJ622V	Carbon	6.2K ohms 1/16W
R695	ERJ3GEYJ221V	Carbon	220 ohms 1/16W
R696	ERJ3GEYJ332V	Carbon	3.3K ohms 1/16W
R697,698	ERJ3GEYJ102V	Carbon	1K ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION	
R699	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R701	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R702	ERJ3GEYJ152V	Carbon	1.5K ohms 1/16W
R703	ERJ3GEYJ184V	Carbon	180K ohms 1/16W
R704	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R705	ERJ3GEYJ562V	Carbon	5.6K ohms 1/16W
R706	ERJ3GEYJ224V	Carbon	220K ohms 1/16W
R707,708	ERJ3GEYJ562V	Carbon	5.6K ohms 1/16W
R709,710	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R711	ERJ3GEYJ104V	Carbon	100K ohms 1/16W
R712	ERJ3GEYJ133V	Carbon	13K ohms 1/16W
R713	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R714	ERJ3GEYJ223V	Carbon	22K ohms 1/16W
R715	ERJ3GEYJ331V	Carbon	330 ohms 1/16W
R716	ERJ3GEYJ104V	Carbon	100K ohms 1/16W
R717	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R718	ERJ3GEYJ273V	Carbon	27K ohms 1/16W
R719	ERJ3GEYJ183V	Carbon	18K ohms 1/16W
R720,721	ERJ3GEYJ223V	Carbon	22K ohms 1/16W
R722	ERJ3GEYJ273V	Carbon	27K ohms 1/16W
R723	ERJ3GEYJ223V	Carbon	22K ohms 1/16W
R724	ERJ3GEYJ273V	Carbon	27K ohms 1/16W
R725	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R726	ERJ3GEYJ151V	Carbon	150 ohms 1/16W
R727	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R730	ERJ3GEYJ102V	Carbon	1K ohms 1/16W
R731	ERJ3GEYJ330V	Carbon	33 ohms 1/16W
R733-735	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R736	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R737	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R740-743	ERJ3GEYJ472V	Carbon	4.7K ohms 1/16W
R745-749	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R754	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R758	ERJ3GEYJ105V	Carbon	1M ohms 1/16W
R759	ERJ3GEYJ561V	Carbon	560 ohms 1/16W
R760	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R780-784	ERJ12Y0R00H	Carbon	0 ohm 1/2W
R805,806	ERJ12YJ101H	Carbon	100 ohms 1/2W
R807,808	ERJ8GCSJ390	Carbon	39 ohms 1/8W
R809,810	ERJ8GCSJ822	Carbon	8.2K ohms 1/8W
R811	ERJ3GEYJ273V	Carbon	27K ohms 1/16W
R812,813	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R815,817	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R819-821	ERJ3GEYJ103V	Carbon	10K ohms 1/16W
R880-882	ERJ12Y0R00H	Carbon	0 ohm 1/2W
Z5-10	YWMNR14EJ103	Block Resistor	10K ohms
Z110,112	YWMNR14EJ103	Block Resistor	10K ohms
Z201-208	D1H833040002	Block Resistor	33 ohms
Z401,402	YWMNR14EJ103	Block Resistor	10K ohms
Z403-406	YWMNR14EJ220	Block Resistor	22 ohms
Z601	EXBA10E563J	Block Resistor	56K ohms
Z602	EXBA10E332J	Block Resistor	3.3K ohms
Z603	EXBA10E563J	Block Resistor	56K ohms
Z604	EXBA10E332J	Block Resistor	3.3K ohms
Z802	YWMNR14EJ103	Block Resistor	10K ohms

REF. NO.	PART NO.	DESCRIPTION	
C1	MCUV1H820JCV	Ceramic	82 pF
C2	F1H1H620A004	Ceramic	62 pF
C3,4	YW5X224K1VT	Ceramic	0.22 µF
C5-9	MCUV1E104ZFV	Ceramic	0.1 µF
C10	F1H1H101A004	Ceramic	100 pF
C11	MCUV1E104ZFV	Ceramic	0.1 µF
C12	F1H1H101A004	Ceramic	100 pF
C13	MCUV1E104ZFV	Ceramic	0.1 µF
C14	F1H1H101A004	Ceramic	100 pF
C15-18	F1H1A105A002	Ceramic	1 µF
C19	MCUV1E104ZFV	Ceramic	0.1 µF
C20,23	F1H1H101A004	Ceramic	100 pF
C24,25	MCUV1E104ZFV	Ceramic	0.1 µF
C26	F1H1H101A004	Ceramic	100 pF
C27	MCUV1E104ZFV	Ceramic	0.1 µF
C28	F1H1H101A004	Ceramic	100 pF
C29,30	F1H1H5R00002	Ceramic	5 pF
C31	MCUV1E104ZFV	Ceramic	0.1 µF
C32	F1H1H101A004	Ceramic	100 pF
C33,34	F3K1A1060001	Tantalum	10 µF 10V
C35,36	MCUV1E104ZFV	Ceramic	0.1 µF
C37	F1H1H101A004	Ceramic	100 pF
C38,39	F1H1H101A004	Ceramic	100 pF
C40,41	MCUV1E104ZFV	Ceramic	0.1 µF
C42,43	F2G1V2200001	Electrolytic	22 µF 35V
C44	F1H1H101A004	Ceramic	100 pF
C45	MCUV1E104ZFV	Ceramic	0.1 µF
C46	F1H1H101A004	Ceramic	100 pF
C47	MCUV1E104ZFV	Ceramic	0.1 µF
C48	F1H1H101A004	Ceramic	100 pF
C49	MCUV1E104ZFV	Ceramic	0.1 µF
C50	F1H1H101A004	Ceramic	100 pF
C51	MCUV1E104ZFV	Ceramic	0.1 µF
C52	F1H1H101A004	Ceramic	100 pF
C53	MCUV1E104ZFV	Ceramic	0.1 µF
C54	F1H1H101A004	Ceramic	100 pF
C55	MCUV1E104ZFV	Ceramic	0.1 µF
C56	F1H1H101A004	Ceramic	100 pF
C57,58	MCUV1E104ZFV	Ceramic	0.1 µF
C59,60	F1H1H101A004	Ceramic	100 pF
C61,62	MCUV1E104ZFV	Ceramic	0.1 µF
C63,64	F1H1H101A004	Ceramic	100 pF
C65	MCUV1E104ZFV	Ceramic	0.1 µF
C70	MCUV1H102KBV	Ceramic	1000 pF
C101	MCUV1E104ZFV	Ceramic	0.1 µF
C102	F1H1H101A004	Ceramic	100 pF
C103	YWTB1C475M8R	Tantalum	4.7 µF 16V
C105	MCUV1E104ZFV	Ceramic	0.1 µF
C106,107	F1H1H101A004	Ceramic	100 pF
C108	MCUV1E104ZFV	Ceramic	0.1 µF
C109	F1H1H101A004	Ceramic	100 pF
C110,111	MCUV1E104ZFV	Ceramic	0.1 µF
C112	F1H1H101A004	Ceramic	100 pF
C113	MCUV1E104ZFV	Ceramic	0.1 µF
C114	F1H1H101A004	Ceramic	100 pF

REF. NO.	PART NO.	DESCRIPTION	
C115	MCUV1E104ZFV	Ceramic	0.1 µF
C116	F1H1H101A004	Ceramic	100 pF
C117	MCUV1E104ZFV	Ceramic	0.1 µF
C118	F1H1H101A004	Ceramic	100 pF
C119	MCUV1E104ZFV	Ceramic	0.1 µF
C120	F1H1H101A004	Ceramic	100 pF
C121	MCUV1E104ZFV	Ceramic	0.1 µF
C122	F1H1H101A004	Ceramic	100 pF
C123	MCUV1E104ZFV	Ceramic	0.1 µF
C124	F1H1H101A004	Ceramic	100 pF
C125	MCUV1E104ZFV	Ceramic	0.1 µF
C126	F1H1H101A004	Ceramic	100 pF
C127	MCUV1E104ZFV	Ceramic	0.1 µF
C128,129	F1H1H101A004	Ceramic	100 pF
C130	MCUV1E104ZFV	Ceramic	0.1 µF
C131	F1H1H101A004	Ceramic	100 pF
C132-136	MCUV1E104ZFV	Ceramic	0.1 µF
C137	F1H1H101A004	Ceramic	100 pF
C138,139	MCUV1E104ZFV	Ceramic	0.1 µF
C140,141	F1H1H101A004	Ceramic	100 pF
C142	MCUV1E104ZFV	Ceramic	0.1 µF
C143	F1H1H101A004	Ceramic	100 pF
C144	MCUV1E104ZFV	Ceramic	0.1 µF
C145	F1H1H101A004	Ceramic	100 pF
C146	MCUV1E104ZFV	Ceramic	0.1 µF
C147	F1H1H101A004	Ceramic	100 pF
C148	MCUV1E104ZFV	Ceramic	0.1 µF
C149	F1H1H101A004	Ceramic	100 pF
C150,151	MCUV1E104ZFV	Ceramic	0.1 µF
C152	F1H1H101A004	Ceramic	100 pF
C153	MCUV1E104ZFV	Ceramic	0.1 µF
C154,155	F1H1H101A004	Ceramic	100 pF
C156-158	MCUV1E104ZFV	Ceramic	0.1 µF
C159	F1H1H101A004	Ceramic	100 pF
C160,161	MCUV1E104ZFV	Ceramic	0.1 µF
C162	YWTB1C475M8R	Tantalum	4.7 µF 16V
C163	MCUV1E104ZFV	Ceramic	0.1 µF
C201	F1H1H103A013	Ceramic	0.01 µF
C202	MCUV1E104ZFV	Ceramic	0.1 µF
C203	F1H1H101A004	Ceramic	100 pF
C204	MCUV1E104ZFV	Ceramic	0.1 µF
C205	F1H1H101A004	Ceramic	100 pF
C206	MCUV1E104ZFV	Ceramic	0.1 µF
C207	F1H1H101A004	Ceramic	100 pF
C208	MCUV1E104ZFV	Ceramic	0.1 µF
C209	F1H1H101A004	Ceramic	100 pF
C210	MCUV1E104ZFV	Ceramic	0.1 µF
C211	F1H1H101A004	Ceramic	100 pF
C212	MCUV1E104ZFV	Ceramic	0.1 µF
C213	F1H1H101A004	Ceramic	100 pF
C214	MCUV1E104ZFV	Ceramic	0.1 µF
C215	F1H1H101A004	Ceramic	100 pF
C216	MCUV1E104ZFV	Ceramic	0.1 µF
C217	F1H1H101A004	Ceramic	100 pF
C218	MCUV1E104ZFV	Ceramic	0.1 µF

REF. NO.	PART NO.	DESCRIPTION	
C219	F1H1H101A004	Ceramic	100 pF
C220	MCUV1E104ZFV	Ceramic	0.1 µF
C221	F1H1H101A004	Ceramic	100 pF
C222	MCUV1E104ZFV	Ceramic	0.1 µF
C223	F1H1H101A004	Ceramic	100 pF
C224	MCUV1E104ZFV	Ceramic	0.1 µF
C225	F1H1H101A004	Ceramic	100 pF
C226	MCUV1E104ZFV	Ceramic	0.1 µF
C227	F1H1H101A004	Ceramic	100 pF
C228	MCUV1E104ZFV	Ceramic	0.1 µF
C229	F1H1H101A004	Ceramic	100 pF
C230	MCUV1E104ZFV	Ceramic	0.1 µF
C231	F1H1H101A004	Ceramic	100 pF
C232	MCUV1E104ZFV	Ceramic	0.1 µF
C233	F1H1H101A004	Ceramic	100 pF
C234	MCUV1E104ZFV	Ceramic	0.1 µF
C235	F1H1H101A004	Ceramic	100 pF
C236	MCUV1E104ZFV	Ceramic	0.1 µF
C237	F1H1H101A004	Ceramic	100 pF
C240	F2G0J1010002	Electrolytic	100 µF 6.3V
C241	MCUV1E104ZFV	Ceramic	0.1 µF
C301	MCUV1E104ZFV	Ceramic	0.1 µF
C302	F1H1H101A004	Ceramic	100 pF
C303	MCUV1E104ZFV	Ceramic	0.1 µF
C304	F1H1H101A004	Ceramic	100 pF
C305	MCUV1E104ZFV	Ceramic	0.1 µF
C306	F1H1H101A004	Ceramic	100 pF
C307	MCUV1E104ZFV	Ceramic	0.1 µF
C308	F1H1H101A004	Ceramic	100 pF
C309	MCUV1E104ZFV	Ceramic	0.1 µF
C310	F1H1H101A004	Ceramic	100 pF
C311	MCUV1E104ZFV	Ceramic	0.1 µF
C312	F1H1H101A004	Ceramic	100 pF
C313	MCUV1E104ZFV	Ceramic	0.1 µF
C314	F1H1H101A004	Ceramic	100 pF
C315	MCUV1E104ZFV	Ceramic	0.1 µF
C316	F1H1H101A004	Ceramic	100 pF
C317	MCUV1E104ZFV	Ceramic	0.1 µF
C318	F1H1H101A004	Ceramic	100 pF
C319	MCUV1E104ZFV	Ceramic	0.1 µF
C320	F1H1H101A004	Ceramic	100 pF
C321	MCUV1E104ZFV	Ceramic	0.1 µF
C322	F1H1H101A004	Ceramic	100 pF
C323	MCUV1E104ZFV	Ceramic	0.1 µF
C324	F1H1H101A004	Ceramic	100 pF
C325	MCUV1E104ZFV	Ceramic	0.1 µF
C326	F1H1H101A004	Ceramic	100 pF
C327	MCUV1E104ZFV	Ceramic	0.1 µF
C328	F1H1H101A004	Ceramic	100 pF
C329	MCUV1E104ZFV	Ceramic	0.1 µF
C330	F1H1H101A004	Ceramic	100 pF
C331	MCUV1E104ZFV	Ceramic	0.1 µF
C332	F1H1H101A004	Ceramic	100 pF
C333	MCUV1E104ZFV	Ceramic	0.1 µF
C334	F1H1H101A004	Ceramic	100 pF

REF. NO.	PART NO.	DESCRIPTION	
C335	MCUV1E104ZFV	Ceramic	0.1 µF
C336	F1H1H101A004	Ceramic	100 pF
C337	MCUV1F1047FV	Ceramic	0.1 µF
C338	F1H1H101A004	Ceramic	100 pF
C339	MCUV1E104ZFV	Ceramic	0.1 µF
C340	F1H1H101A004	Ceramic	100 pF
C350,351	F2G0J1010002	Electrolytic	100 µF 6.3V
C401	MCUV1E104ZFV	Ceramic	0.1 µF
C402,403	F3K1A1060001	Tantalum	10 µF 10V
C405,406	MCUV1E104ZFV	Ceramic	0.1 µF
C407,408	F1H1H200A607	Ceramic	20 pF
C409	F1H1C104A001	Ceramic	0.1 µF
C410	F1H1H201A004	Ceramic	200 pF
C411	F1H1C104A001	Ceramic	0.1 µF
C412	MCUV1E104ZFV	Ceramic	0.1 µF
C413	F3K1A1060001	Tantalum	10 µF 10V
C414	MCUV1E104ZFV	Ceramic	0.1 µF
C415	F3K1A1060001	Tantalum	10 µF 10V
C416	MCUV1E104ZFV	Ceramic	0.1 µF
C417	F3K1A1060001	Tantalum	10 µF 10V
C418	MCUV1E104ZFV	Ceramic	0.1 µF
C419	F3K1A1060001	Tantalum	10 µF 10V
C420-423	F1H1H101A004	Ceramic	100 pF
C424,425	MCUV1E104ZFV	Ceramic	0.1 µF
C501,502	MCUV1E104ZFV	Ceramic	0.1 µF
C503	F1H1H101A004	Ceramic	100 pF
C504	MCUV1E104ZFV	Ceramic	0.1 µF
C505	YWTB1C106M8R	Tantalum	10 µF 16V
C506	F1H1H150A004	Ceramic	15 pF
C507	F1H1H6R00003	Ceramic	6 pF
C508	YWTB1C106M8R	Tantalum	10 µF 16V
C509	F2G0J1010002	Electrolytic	100 µF 6.3V
C510	F2G1C4700003	Electrolytic	47 µF 16V
C512	MCUV1E104ZFV	Ceramic	0.1 µF
C513	F3K1C1050001	Tantalum	1 µF 16V
C514	YWTB1C106M8R	Tantalum	10 µF 16V
C515	F1H1H103A013	Ceramic	0.01 µF
C516	F1H1H101A004	Ceramic	100 pF
C517,518	F2G1H1R00001	Electrolytic	1 µF 50V
C519	MCUV1E104ZFV	Ceramic	0.1 µF
C520,521	YWRVJ1A471M	Electrolytic	470 µF 10V
C522	F2G1H1R00001	Electrolytic	1 µF 50V
C523	MCUV1E104ZFV	Ceramic	0.1 µF
C524	YWRVJ1A471M	Electrolytic	470 µF 10V
C525	MCUV1H470JCV	Ceramic	47 pF
C526	F1H1H271A004	Ceramic	270 pF
C527	F1H1H331A650	Ceramic	330 pF
C528	F1H1H151A650	Ceramic	150 pF
C529	MCUV1H470JCV	Ceramic	47 pF
C530	F1H1H271A004	Ceramic	270 pF
C531	F1H1H331A650	Ceramic	330 pF
C532	F1H1H151A650	Ceramic	150 pF
C533	F1H1H271A004	Ceramic	270 pF
C534	MCUV1H470JCV	Ceramic	47 pF
C535	F1H1H331A650	Ceramic	330 pF

REF. NO.	PART NO.	DESCRIPTION	
C536	F1H1H151A650	Ceramic	150 pF
C546,547	F1H1H330A231	Ceramic	33 pF
C548	F1H1H472A022	Ceramic	4700 pF
C549	F1J1C105A004	Ceramic	1 µF
C550	F1H1H103A013	Ceramic	0.01 µF
C551	F1H1H471A650	Ceramic	470 pF
C552	F1H1H103A013	Ceramic	0.01 µF
C554	F2G1C4700003	Electrolytic	47 µF 16V
C556	YWTB1C106M8R	Tantalum	10 µF 16V
C557	F1H1H101A004	Ceramic	100 pF
C558	MCUV1E104ZFV	Ceramic	0.1 µF
C559	F1H1H101A004	Ceramic	100 pF
C560	MCUV1E104ZFV	Ceramic	0.1 µF
C561	F1H1H101A004	Ceramic	100 pF
C562	MCUV1E104ZFV	Ceramic	0.1 µF
C563	F1H1H101A004	Ceramic	100 pF
C564	MCUV1E104ZFV	Ceramic	0.1 µF
C567	F3K1A1060001	Tantalum	10 µF 10V
C568	F3K0J3360001	Tantalum	33 µF 6.3V
C569	F1H1H100A017	Ceramic	10 pF
C570	MCUV1E104ZFV	Ceramic	0.1 µF
C580,581	F1H1H101A004	Ceramic	100 pF
C590-592	MCUV1E104ZFV	Ceramic	0.1 µF
C593-596	YWTB1C106M8R	Tantalum	10 µF 16V
C597	F1H1C104A001	Ceramic	0.1 µF
C601,602	MCUV1E104ZFV	Ceramic	0.1 µF
C603	YWRVJ1A471M	Electrolytic	470 µF 10V
C604-608	F2G1C2200002	Electrolytic	22 µF 16V
C609	MCUV1E104ZFV	Ceramic	0.1 µF
C610	F2G1C2200002	Electrolytic	22 µF 16V
C611,612	YWTB1C106M8R	Tantalum	10 µF 16V
C613-615	MCUV1E104ZFV	Ceramic	0.1 µF
C616	F1H1H101A004	Ceramic	100 pF
C617,618	YWTB1C106M8R	Tantalum	10 µF 16V
C619	F1J1C2240005	Ceramic	0.22 µF
C620	MCUV1H102KBV	Ceramic	1000 pF
C622	MCUV1E104ZFV	Ceramic	0.1 µF
C623	YWTB1C106M8R	Tantalum	10 µF 16V
C624,625	MCUV1E104ZFV	Ceramic	0.1 µF
C626	MCUV1H820JCV	Ceramic	82 pF
C627,628	MCUV1E104ZFV	Ceramic	0.1 µF
C629,630	F1H1H5R00002	Ceramic	5 pF
C631,632	MCUV1E104ZFV	Ceramic	0.1 µF
C633	YWTB1C106M8R	Tantalum	10 µF 16V
C634	F1H1H331A650	Ceramic	330 pF
C635	MCUV1E104ZFV	Ceramic	0.1 µF
C636	F1H1H101A004	Ceramic	100 pF
C637	F2G1C4700003	Electrolytic	47 µF 16V
C638	YWTB1C106M8R	Tantalum	10 µF 16V
C639	F1H1H150A004	Ceramic	15 pF
C640	YWTB1C475M8R	Tantalum	4.7 µF 16V
C641	F1H1H201A004	Ceramic	200 pF
C642	MCUV1E104ZFV	Ceramic	0.1 µF
C643	F2G1V2200001	Electrolytic	22 µF 25V
C644,645	F1H1H100A017	Ceramic	10 pF

REF. NO.	PART NO.	DESCRIPTION	
C646	MCUV1E104ZFV	Ceramic	0.1 µF
C647,648	F1H1H101A004	Ceramic	100 pF
C649	MCUV1E104ZFV	Ceramic	0.1 µF
C650	F1H1H101A004	Ceramic	100 pF
C651	MCUV1E104ZFV	Ceramic	0.1 µF
C652,653	F1H1H101A004	Ceramic	100 pF
C660	F1H1H270A004	Ceramic	27 pF
C661	F1H1H390A004	Ceramic	39 pF
C662	F1H1H101A004	Ceramic	100 pF
C663	F1H1H560A004	Ceramic	56 pF
C664	MCUV1H470JCV	Ceramic	47 pF
C665	F1H1H680A004	Ceramic	68 pF
C701	MCUV1E104ZFV	Ceramic	0.1 µF
C702	F1J1C105A004	Ceramic	1 µF
C703	F1H1E6820001	Ceramic	6800 pF
C704,705	F1J1C224A048	Ceramic	0.22 µF
C706	F2G1C1000002	Electrolytic	10 µF 16V
C707	F1J1C105A004	Ceramic	1 µF 16V
C708	F2G1C1000002	Electrolytic	10 µF 16V
C709,710	F1H1H101A004	Ceramic	100 pF
C711	MCUV1E104ZFV	Ceramic	0.1 µF
C712	F1H1H101A004	Ceramic	100 pF
C713	F1J1C105A004	Ceramic	1 µF
C714	F1J1C474A051	Ceramic	0.47 µF
C715	F1J1C105A004	Ceramic	1 µF
C720	F1H1H103A008	Ceramic	0.01 µF
C721	YW400334FZ2T	Ceramic	0.33 µF
C722	F3K1A1060001	Tantalum	10 µF 10V
C723-725	MCUV1E104ZFV	Ceramic	0.1 µF
C726	F3K1A1060001	Tantalum	10 µF 10V
C727	MCUV1E104ZFV	Ceramic	0.1 µF
C728,729	F1H1H101A004	Ceramic	100 pF
C730	MCUV1E104ZFV	Ceramic	0.1 µF
C731	F3K1C1050001	Tantalum	1 µF 16V
C732	F3K1A1060001	Tantalum	10 µF 10V
C733	F1H1H360A004	Ceramic	36 pF
C734	F1H1H220A004	Ceramic	22 pF
C735	F1H1H101A004	Ceramic	100 pF
C740,741	YW5X224K1VT	Ceramic	0.22 µF
C742	F2G1C4700003	Electrolytic	47 µF 16V
C805	MCUV1E104ZFV	Ceramic	0.1 µF
C806	F2G1C2200002	Electrolytic	22 µF 16V
C807,808	MCUV1E104ZFV	Ceramic	0.1 µF
C809	F1H1H101A004	Ceramic	100 pF
C810-812	MCUV1E104ZFV	Ceramic	0.1 µF
C813	F1H1H101A004	Ceramic	100 pF
CT501	F7DCD1000004	Trimmer Capacitor	10 pF
L1	J0JCC0000003	Coil	
L2	CDRH62B100MC	Coil	
L201	G1C8R2K00008	Coil	8.2 µH
L202	J0JCC0000003	Coil	
L301	G1C2R2K00007	Coil	2.2 uH
L302	G1C2R2J00003	Coil	2.2 uH
L401-403	J0JDC0000015	Coil	
L404	G1C2R2J00003	Coil	2.2 uH

REF. NO.	PART NO.	DESCRIPTION	
L406-408	G1C2R2J00003	Coil	2.2 uH
L501,502	G1C2R2J00003	Coil	2.2 uH
L503	G1C2R2J00004	Coil	2.2 uH
L504	G1C2R2J00003	Coil	2.2 uH
L505	J0JDC0000015	Coil	
L506	NL3225T2R7K	Coil	2.7 uH
L507	G1C1R8J00003	Coil	1.8 uH
L508,509	J0JCC0000003	Coil	
L510	NL3225T2R7K	Coil	2.7 uH
L511	G1C1R8J00003	Coil	1.8 uH
L512	J0JCC0000003	Coil	
L513	NL3225T2R7K	Coil	2.7 uH
L514-516	J0JCC0000003	Coil	
L517	G1C1R8J00003	Coil	1.8 uH
L601-605	J0JCC0000003	Coil	
L606	YWNL45T8R2J	Coil	8.2 uH
L607	YWNL45T100J	Coil	10 uH
L608	NL3225T2R7K	Coil	2.7 uH
L701,702	J0JDC0000015	Coil	
T801,802	G4BZE0000020	High Frequency Transformer	
SW1	SKHHLR	Push Switch	
SW2	K0D116A00002	Slide Switch	
SW101	EVQPJX05M	Push Switch	
SW102	K0D141A00002	Slide Switch	
SW601	YWSSSS022AT	Slide Switch	
SW801	K0D122B00046	Slide Switch	
X1	H0J200500011	Crystal Oscillator	
X201	H1A4005B0005	Crystal Oscillator	
X501	H0J270500003	Crystal Oscillator	
X502	H0J357400009	Crystal Oscillator	
X601	YWKD143186A	Crystal Oscillator	
X701	H0J122500004	Crystal Oscillator	
CF1-6	EXCCET222U	LC Filter	
CF8-19	EXCCET222U	LC Filter	
CF401	YW4FW8052	LC Filter	
CF402	YW4FW8053	LC Filter	
CF501	YW4FW8052	LC Filter	
CF502	YW4FW8053	LC Filter	
CF701,702	EXCEMI222DC	EMI Filter	
RL701	K6B2CDA00035	Relay	
CN1	YWTM11R5C66	6-pin Modular Connector	
CN2-5	K1KA30A00079	30-pin Connector	
CN6,7	YWTM11R5C66	6-pin Modular Connector	
CN8	JEY9P1A3G13	9-pin D-sub Connector	
CN9	K1KA07A00009	7-pin Connector	
CN101	RFH102TD1130	10-pin Connector	
CN104	K3E044M00020	44-pin IC Socket	
CN502	K1QBB2CB0003	BNC Connector	
CN601-603	K1QBB2CB0003	BNC Connector	
CN604	K1MN26A00009	26-pin Connector	
CN605	YW526101590	15-pin Connector	
CN606	YWXJ8B0311	3-pin Connector	
CN607	YWXJ8A0211	2-pin Jumper Connector Socket	
CN701	B11BPHSM1B	11-pin Connector	
JK702	K2HA204B0015	RCA Pin Jack	

REF. NO.	PART NO.	DESCRIPTION
JK801	K2LC108B0017	8-pin Modular Jack
E1-7	YWMEP1866	Earth Terminal
E8	YWDIC1493P	3-pin Terminal
E9-12	YWHK2S	Test Point Terminal
E101	YWDIC1493P	3-pin Terminal
E500	YWHK2S	Test Point Terminal
M41	V2SA4681B3	Shield Angle
M42	JFS2.6SB1WM	Special Screw
M43	YWA3CA0052A4	LED Holder
M44	YWX480WB01B	Rubber Sheet Cushion for Crystal
M45	YWMPS040	Spacer
M46	V2HA2205A3	Shield Part for IC201
PIO BOARD		
PCB5 (RTL)	JAV20JKZ3A	Printed Circuit Board Ass'y
IC1,2	C0CAAKC00003	IC
Q1-16	2SD0601AWL	Transistor
Q17-33	2SD0602AWL	Transistor
Q35	2SD0602AWL	Transistor
Q36,40	2SD0601AWL	Transistor
D1-10	MA151WA	Diode
VS1-35	ERZVA5D221	Varistor
R1	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R2	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R3	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R4	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R5	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R6	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R7	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R8	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R9	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R10	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R11	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R12	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R13	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R14	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R15	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R16	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R17	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R18	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R19	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R20	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R21	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R22	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R23	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R24	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R25	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R26	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R27	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R28	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R29	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R30	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R31	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R32	ERJ6GEYJ223V	Carbon 22K ohms 1/10W

REF. NO.	PART NO.	DESCRIPTION
R33	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R34	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R35	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R36	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R37	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R38	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R39	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R40	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R41	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R42	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R43	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R44	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R45	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R46	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R47	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R48	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R49	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R50	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R51	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R52	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R53	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R54	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R55	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R56	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R57	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R58	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R59	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R60	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R61	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R62	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R63	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R64	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R65	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R66	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R67	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R68	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R69	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R70	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R71	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R72	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R73	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R74	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R75	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R76	ERJ6GEYJ153V	Carbon 15K ohms 1/10W
R77	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R78	ERJ6GEYJ562V	Carbon 5.6K ohms 1/10W
R79	ERJ6GEYJ223V	Carbon 22K ohms 1/10W
R80	ERJ6GEYJ560V	Carbon 56 ohms 1/10W
R81	ERJ1WY0R00H	Carbon 0 ohm 1W
R82	ERJ6GEYJ152V	Carbon 1.5K ohms 1/10W
R83	ERJ14YJ100H	Carbon 10 ohms 1/4W
R84	ERJ6GEYJ152V	Carbon 1.5K ohms 1/10W
R85	ERJ14YJ100H	Carbon 10 ohms 1/4W
R86	ERJ6GEYJ152V	Carbon 1.5K ohms 1/10W
R87	ERJ14YJ100H	Carbon 10 ohms 1/4W

REF. NO.	PART NO.	DESCRIPTION	
R88	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R89	ERJ14YJ100H	Carbon	10 ohms 1/4W
R90	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R91	ERJ14YJ100H	Carbon	10 ohms 1/4W
R92	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R93	ERJ14YJ100H	Carbon	10 ohms 1/4W
R94	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R95	ERJ14YJ100H	Carbon	10 ohms 1/4W
R96	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R97	ERJ14YJ100H	Carbon	10 ohms 1/4W
R98	ERJ6GEYJ122V	Carbon	1.2K ohms 1/10W
R99	ERJ14YJ100H	Carbon	10 ohms 1/4W
R100	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R101	ERJ14YJ100H	Carbon	10 ohms 1/4W
R102	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R103	ERJ14YJ100H	Carbon	10 ohms 1/4W
R104	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R105	ERJ14YJ100H	Carbon	10 ohms 1/4W
R106	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R107	ERJ14YJ100H	Carbon	10 ohms 1/4W
R108	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R109	ERJ14YJ100H	Carbon	10 ohms 1/4W
R110	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R111	ERJ14YJ100H	Carbon	10 ohms 1/4W
R112	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R113	ERJ14YJ100H	Carbon	10 ohms 1/4W
R114	ERJ6GEYJ152V	Carbon	1.5K ohms 1/10W
R115	ERJ14YJ100H	Carbon	10 ohms 1/4W
R118	ERJ6GEYJ122V	Carbon	1.2K ohms 1/10W
R119	ERJ14YJ100H	Carbon	10 ohms 1/4W
R120	ERJ6GEYJ153V	Carbon	15K ohms 1/10W
R121	ERJ6GEYJ223V	Carbon	22K ohms 1/10W
R122	ERJ6GEYJ562V	Carbon	5.6K ohms 1/10W
R123	ERJ6GEYJ223V	Carbon	22K ohms 1/10W
R124	ERJ6GEYJ560V	Carbon	56 ohms 1/10W
R125	ERJ1WY0R00H	Carbon	0 ohm 1W
R201-208	ERJ6GEYJ102V	Carbon	1K ohms 1/10W
R209	ERJ6GEYJ561V	Carbon	560 ohms 1/10W
R210-217	ERJ6GEYJ102V	Carbon	1K ohms 1/10W
R219	ERJ6GEYJ561V	Carbon	560 ohms 1/10W
R220	ERJ6GEYJ153V	Carbon	15K ohms 1/10W
R221	ERJ6GEYJ223V	Carbon	22K ohms 1/10W
R222	ERJ6GEYJ562V	Carbon	5.6K ohms 1/10W
R223	ERJ6GEYJ223V	Carbon	22K ohms 1/10W
R224	ERJ6GEYJ560V	Carbon	56 ohms 1/10W
C1-16	YF400222FZT	Ceramic	2200 pF
C17-20	F1J1C224A054	Ceramic	0.22 µF
C21-37	YF400102FZT	Ceramic	1000 pF
C39	YF400102FZT	Ceramic	1000 pF
C40	YF400222FZT	Ceramic	2200 pF
C41-43	ECA1HHG470I	Electrolytic	47 µF 50V
C44	YF400222FZT	Ceramic	2200 pF
CN1	K1MN26B00014	26-pin Connector	
CN2	K1MN15B00019	15-pin Connector	
CN3,4	XM3B2522502	25-pin D-sub Connector	

REF. NO.	PART NO.	DESCRIPTION
E1-3	YWMEP1866	Earth Terminal
M47	YWV2SA4682A3	Mounting Angle for PIO Board
E911 ⚠	YWKP4819CE25	Power Cord (for /G)
ACCESSORY PARTS / PACKAGING PARTS		
⚠	YWKP610S75R	Power Cord (for /B)
E912	YWALKA0661A4	6-conductor Modular Cable (for RS-485)
E913	YWF33K001426	8-conductor Modular Cable (for ISDN)
M61	YWV5EA0505B3	Switch Protector
M62	YWA2SA1756A3	Rack Mount Bracket
M63	V8QA5337AN	Operating Instructions
M66	YWT050803	Polyethylene Bag
M67	PE26X40C05B	Polyethylene Bag
M68	PE20X35C05B	Polyethylene Bag
M69	PE55X71C1B	Polyethylene Bag
M70	V9CA4123AN	Packaging Ass'y
M71	YWV7SA2037A3	Bar Code Label
⑧	XSB3+10FN	Mounting Bracket Screw

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